



Product:

Vi-System – Real-Time Video Analytics

Application:

Security and Perimeter Protection

Customer: Royal Thai Air Force

Location: Don Muang Airport, Bangkok, Thailand

Vertical Market: Government & Military Facilities
(Air Base)

Agent Vi Partners:

Kana Associates – System Integrator

Mango DSP – Video Encoders

Agent Vi Helps RTAF Detect and Alert to Persons in Aircraft-Only Zones

Challenge

Don Muang Air Base is the Royal Thai Air Force's (RTAF) main air base. Adjacent to Bangkok's International Airport, it forms part of a network of airfields built and used by US forces until their withdrawal from Thailand in 1976. Today, it is the main operating and command base for the RTAF, and in addition, units of the Royal Thai Army and Royal Thai Police have personnel located there.

The RTAF sought a real-time video analytics solution that would run on the air base's existing infrastructure to automatically detect and alert to human movement – such as unauthorized persons entering the landing strip from an adjacent forest or entering aircraft parking zones – while ignoring aircraft movement. The RTAF also sought to automatically detect and alert to stationary vehicles in the no-stopping zones around the airport's perimeter fence.

Solution

Existing infrastructure at Don Muang included analog cameras connected to Mango DSP Raven-M video servers and a video management system provided by Olin Hall NVMS. In line with the RTAF's security and perimeter protection needs, the encoders were defined for:

- **Person crossing a line** and **Person moving in an area** to detect and alert to unauthorized personnel entering and moving freely in restricted areas;
- **Stopped vehicle** to detect vehicles that stop in no-stopping zones near the air base's perimeter.

Initially, in the project's first stage, the customer installed Vi-System – Agent Vi's real-time detection and alert software – on 8 cameras. After 12 months, and following a number of security incidents which were detected by Vi-System, the project's second stage commenced. This stage included the introduction of 22 additional cameras, as well as the expansion of stage one's 8 cameras to 10 cameras. Altogether, through stage one and two of the project, some 32 cameras were enabled with real-time detection and alert capabilities, providing the RTAF with superior detection capabilities for the Don Muang Air Base.

“After thorough research and investigations, we chose Vi-System, recognizing its robust performance in difficult conditions. This accomplishment has been acknowledged by the British Home Office which has certified Vi-System as an i-LIDS® approved primary detection system for operational alert use in sterile zone monitoring applications.”

—Director of Security Division
RTAF Directorate of Intelligence

Result

The installation of Vi-System at the Don Muang Air Base has greatly enhanced the level of security available. Rather than observing monitors and occasionally detecting suspicious incidents, the security staff now focuses on responding to the security breaches following automatic detections and alerts. According to a senior RTAF security officer, the solution has detected a number of instances of people intruding into restricted zones such as the runways, enabling the airport “to quickly gain control of the situation” and prevent further security and safety threats.

Vi-System’s detections are quite an achievement given the testing environmental conditions under which the solution was installed. Specifically, the detection area is not illuminated as the flood lights do not reach such zones, and moreover, the detection area is at a significant distance of approximately 200 meters from the cameras. Having performed well under such challenging circumstances, the customer is planning a third stage which will introduce real-time analytics in additional parts of the airport, such as the fuel depots and radar stations.

Gp. Capt. Noppadol Thongpoom, Director of Security Division, RTAF Directorate of Intelligence, commented that “we needed the highest performance real-time analytics solution due to the sensitive nature of the site. After thorough research and investigations, we chose Vi-System, recognizing its robust performance in difficult conditions. This accomplishment has been acknowledged by the British Home Office which has certified Vi-System as an i-LIDS® approved primary detection system for operational alert use in sterile zone monitoring applications.”

About Agent Vi

Agent Video Intelligence (Agent Vi) is a leading provider of open architecture, video analytics software deployed in a variety of security, safety and business intelligence applications worldwide. The comprehensive video analytics solutions offered by Agent Vi extend from real-time video analysis and alerts to forensic search and post-event analysis, and are fully integrated with a range of third party edge devices and video management systems.

Integrating Agent Vi’s advanced video analytics capabilities into existing or new surveillance networks enables users to benefit from the true potential of their surveillance networks, transforming them into intelligent tools that respond to the practical challenges of the 21st century.

About Vi-System

Vi-System is Agent Vi’s real-time video analytics software, which transforms standard surveillance networks into intelligent and effective detection and alert systems.

By performing real-time analysis of the video stream, Vi-System identifies and generates alerts for a variety of user-defined events relating to people, vehicles and objects. Used for applications such as security, safety and business intelligence, Vi-System offers effective monitoring of multiple video sources in parallel, enabling automatic detections, alerts and responses to events, as they emerge.

Based on Agent Vi’s open architecture, pure-software approach, Vi-System can be easily integrated with a wide range of edge devices and video management systems, in both new and existing surveillance networks.

Vi-System boasts the combined benefits of superior detection performance, high scalability, installation simplicity and ease of use, making Vi-System the most advanced, comprehensive and cost effective real-time video analytics solution on the market.