AGENT Vi

Agent Vi Protects Leading Underground Infrastructure Enterprise Against Theft

Product:
Vi-System – Real-Time Video Analytics

Application:
Security and Intrusion Detection

Customer: Smet-Boring

Location: Dessel, Belgium

Vertical Market: Enterprise/Industrial

Agent Vi Partners:
Axis Communications – Cameras
Milestone Systems – Video Management System (VMS)
BusSaP – Certified Systems Integrator

Challenge

Smet-Boring is a family-owned business with more than 450 employees that boasts over 100 years specialization in underground infrastructure techniques. Smet-Boring's three subsidiaries are leaders in a variety of market segments, such as dewatering, vertical drillings, water treatment (electro-mechanics), soil energy, tunnel borings with segments, sewage rehabilitation and more.

Smet-Boring is based in a 90,000 square meter site in Dessel, Belgium, which houses the head offices as well as a sophisticated workshop for construction and maintenance of specialized machinery. Over the years several incidents of theft occurred, resulting in significant financial losses. Accordingly, Smet-Boring sought a way to enhance their surveillance system and ensure broader coverage of the site, without having to increase their manpower. Of most interest was the detection and tracking of unauthorized people at the site after-hours and on weekends.

Solution

After thorough testing to achieve the optimal level of site security, certified systems integrator BusSaP deployed Vi-System, Agent Vi's real-time video analytics solution, and a range of IP cameras from Axis Communications. Through Agent Vi's seamless integration with Axis products, the analytics capabilities were enabled in various Axis camera types, including fixed dome, thermal and pan-tilt-zoom (PTZ) cameras (AXIS P3344, AXIS P1344, AXIS Q1922 and AXIS Q6032).

The site poses challenging environmental conditions, including extensive outdoor areas that have limited illumination, making it difficult to capture video and detect suspicious behavior. Axis' thermal cameras enabled with Vi-System were placed at critical junctions and pre-selected locations across the site in order to secure these difficult surroundings.

The following real-time detection rule is active on the Axis cameras: Person moving in an area to detect and alert to unauthorized personnel entering the site and moving in restricted areas.

Smet-Boring employs Milestone XProtect® Professional as their VMS recording and viewing application, which is fully integrated with Agent Vi's software. Therefore, incidents detected by Vi-System generate an alert which is displayed in the Milestone XProtect® Smart Client.

> *"We had a few vulnerable spots at the site that were causing a nuisance, and after some testing, it was clear that Agent Vi's analytics, combined with thermal and PTZ cameras from Axis, delivers the best solution... With Agent Vi's detections, the immediate display of intruders' movement paths, and the sharp decrease in false alarms, our security team now operates at an optimal level."*
>
> **Facility Manager**
> Smet-Boring

Result

The best-of-breed solution integrating Agent Vi, Axis and Milestone XProtect products delivers a sophisticated, highly accurate detection system for sterile zone monitoring.

Smet-Boring's main security concern is the detection of intruders after-hours, including evenings, weekends and holidays. To operate the analytics during such critical periods, Smet-Boring utilizes Vi-System's Rule Management tool, allowing automatic activation (and de-activation) of detection rules at pre-defined hours and days. In particular, a detection rule may be automatically disabled during weekdays when staff movement is expected, and automatically enabled for weekday evenings and the weekend, when no staff motion is expected in that same area.

Before Vi-System's introduction, the surveillance system was configured to alert on any motion detection in certain areas. This resulted in a high rate of false alarms, as all movement in such areas was detected, including harmless motion by birds and bats, especially at night. The installation of Vi-System has prompted a sharp decrease in false alarms due to Vi-System's ability to differentiate between target types (persons, vehicles, objects) and ignore irrelevant motion such as movement by small animals.

The level of site security has been significantly enhanced through early and accurate detections. Vi-System, combined with Axis thermal cameras, provides highly accurate detection results in remote areas with rough terrain; these cameras offer outstanding range and are used at Smet-Boring to detect events some 140 meters from the camera. Moreover, this higher level of security has been achieved without an increase in the associated manpower costs of staff physically manning and patrolling the site.

Vi-System has detected intruders on a number of occasions, and the lead time gained by these early detections enabled a more effective response by the security guards. In addition to triggering real-time alerts, the analytics generates an overlay and motion path (tracking) which provides security staff with a clear picture of the intruder's movement. Furthermore, through Agent Vi's integration with the Milestone platform, once the analytics triggers an event, a representative event snapshot is generated and can be used as evidence. This is particularly important when damage has been caused.

Philip Hermans, Facility Manager at Smet-Boring, commented that "We had a few vulnerable spots at the site that were causing a nuisance, and after some testing, it was clear that Agent Vi's analytics, combined with thermal and PTZ cameras from Axis, delivers the best solution. With the integration of our lighting system and our mobile devices, we now react quickly and in real-time to security incidents." He added that "With Agent Vi's detections, the immediate display of intruders' movement paths, and the sharp decrease in false alarms, our security team now operates at an optimal level."

Stefan Van Waelderen, company owner of BusSaP added "In the past we employed a few other video analytics products, but we have found the reliability and accuracy of the Agent Vi real-time product to be the most impressive. The high level of support provided by Agent Vi helped us to optimize the installation enabling us to hand over a reliable solution with hardly any false alarms."

Ariel Frischoff, VP Sales EMEA & APAC at Agent Vi said "The combination of Vi-System and Axis thermal cameras provides the most cost-effective solution for Smet-Boring, employing a minimal number of cameras while delivering a high level of accuracy and performance. Other solutions tested by the customer required a significantly higher number of cameras and dedicated lighting solutions, which were very expensive."

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 user-defined events relating to people, vehicles and objects. Used for applications such as security, safety and business intelligence, Vi-System enables automatic detections, alerts and responses to events, as they emerge.

About BusSaP

BusSaP is a Belgian security integrator that provides total solutions for camera surveillance, video analytics, access control, and alarm management based on IP network technology. With many years of experience in providing IT services, BusSaP is committed to delivering innovative surveillance solutions. Using open technology products, BusSaP's expert integration and project management skills, service mentality, flexibility and positive attitude ensure high customer satisfaction. www.bussap.com