Johannesburg's Community-based Anti-crime initiative CAP Leverages Agent Vi's Remote Guarding Service to Boost Security and Revenue

Product: innoVi Remote Guarding

Application: Real-Time Intrusion Detection & Sterile Zone Monitoring

Customer: Community Active Protection

Location: Johannesburg, South Africa

Vertical Market: Remote Guarding / Enterprise

Agent Vi Partners:

Milestone Systems – Video Management Software

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- Sean Jammy, COO, Community Active Protection (CAP)

Challenge

Johannesburg is a city plagued by burglaries, home invasions, car hijackings and theft. Police resources are stretched, and private security guards – once the norm at gated communities and affluent neighborhoods – are less affordable as wages have increased in line with a fair pay policy.

Community Active Protection (CAP) was founded as a non-profit organization in 2006 in response to these high levels of crime. From the outset, CAP has taken a proactive approach to crime prevention, recruiting highly capable teams to patrol streets, and motivating citizens to report suspicious activity to CAP's Command Center, a state-of-the-art control room that fields all calls and dispatches CAP Tactical Units. The CAP initiative has proven extremely effective, reducing crime in monitored areas by a reported 80-90%.

Additionally, in response to customer demand for reactive armed guards, in 2016, CAP created an off-site monitoring service, called CAP Smart Guard, which is deployed primarily at and around gated residences, as well as private homes, using privately-owned cameras connected to the CAP network. CAP sought an intrusion detection solution for the Smart Guard service, to increase the level of protection and response offered to their customers.

Solution

CAP deployed Agent Vi's innoVi Remote Guarding software as a service (SaaS) to receive accurate and automatic detections of security breaches at the remote sites that CAP monitors.

Cameras at the remote sites are connected to the service via innoVi Edge, a compact appliance pre-loaded with Agent Vi's powerful video analytics, where initial video analysis is performed. innoVi Edge connects any ONVIF/RTSP IP camera to innoVi Core (a server hosted in the Agent Vi data center) for high-level processing and data analysis.

CAP defines events of interest, including intruders entering private property, movement in sterile zones, and cars stopped in unauthorized areas. When innoVi detects such an event, innoVi generates an alert that is sent to CAP's central monitoring center and displayed in their Milestone XProtect video management software (VMS), along with an event clip that provides video verification of the security breach. The alerts and clips are viewed by the CAP Command Center operators in the XProtect Smart Client. At the same time, an image may be sent by CAP's control room to the client's mobile device. Operators quickly review the clip and decide on the best course of action.

Furthermore, in line with its proactive approach, CAP has begun to employ Agent Vi's Deep Learning-driven Anomaly Detection capability. Agent Vi's Deep Learning infrastructure trains on millions of real-life images taken from surveillance video, a product of 15 years of the company's collected data. Based on this, the algorithm knows to classify different object types (person / car / object, etc.). Once connected to a CAP camera, the Anomaly Detection algorithm learns the specific scene, so that it "knows" the "usual" behavior / patterns. The Anomaly Detection capability can then identify and alert the Command Center to events that are "not usual" – i.e., anomalous – without pre-configuration or pre-definition.

Result

CAP is highly satisfied with innoVi's technology, performance and business model. According to CAP COO Sean Jammy, "We're finding that innoVi's performance at the property line is significantly better than other systems we've used. And that's in complex environments like streets, gates, and the like."

Having tested several other solutions, Jammy says, "This is the best analytics product we've seen. Almost all of the alerts we receive are accurate. With other products, it was the complete opposite. Agent Vi's technology is astounding. I can't say enough good things about it."

innoVi is camera-agnostic, able to connect through innoVi Edge to any ONVIF/RTSP IP camera, with no need to replace existing cameras, leading to a savings in time and money.

Because of its proactive approach, CAP measures success in terms of events that have been averted due to alerts that enable a crime to be stopped before it occurs.

innoVi has detected perimeter breaches and instances of loitering outside the property line, allowing CAP to avert crimes at the properties they monitor

A night time detection by innoVi on a thermal camera; innoVi can connect to any ONVIF/RTSP IP camera via innoVi Edge

innoVi's Anomaly Detection technology detects unusual behavior, alerting CAP's Command Center to events of interest that would otherwise go unnoticed

"Our biggest success so far with innoVi is that not one of our monitored sites has experienced an incident of crime at the property line. This is thanks to multiple interventions by the CAP team, following innoVi detections and alerts".

Another indicator is a high level of customer satisfaction. "We have some very discerning clients," says Jammy, "and the number of compliments we've received is off the charts. People are really happy with the offering. We're giving our clients a service that is more effective, significantly less expensive than a dedicated 24-hour guard, and that doesn't escalate in cost. Plus, a human guard doesn't include a perimeter detection solution."

For its part, the recurring monthly revenue (RMR) model, in which customers are billed on a pay-per-use, per-month basis, as opposed to a one-time per license fee, is enabling CAP to add innoVi to existing and new CCTV deployments, while keeping operational costs low and under control.

"CAP was set up to protect community interests through proactive monitoring, making it the right fit for innoVi Remote Guarding," said Ariel Frischoff, VP Sales EMEA and APAC at Agent Vi. "innoVi's Deep Learning algorithm trains on millions of images extracted from real-life surveillance video. The result: a highly accurate event detection service that continues to improve over time. Because of this methodology, innoVi Remote Guarding is able to discover potential breaches that other solutions might miss."

These continual learning and enhancement processes are key to achieving the best results, says Jammy, adding, "Our success will be measured in providing an effective, sustainable solution over a long period."

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Agent Video Intelligence (Agent Vi™) is the leading global provider of open architecture, video analytics solutions. Agent Vi's comprehensive video analytics offering includes software products for on-premise installations as well as cloud-based SaaS, with capabilities ranging from real-time video analysis and alerts to video search and business intelligence applications. The solutions are fully integrated with a range of 3rd party cameras, encoders, video management systems and alarm automation software. For more information: www.agentvi.com