

InteleXVision Insights

A SERIES OF
SECURITY
INDUSTRY
WHITEPAPERS

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Revolutionising Security: Embracing AI as the Foundation





As professionals in AI, we are deeply immersed in the transformative potential of artificial intelligence in security and advocate for a paradigm shift that places AI at the forefront of security solutions. Traditional methods, rooted in static systems and manual monitoring, are rapidly being eclipsed by dynamic AI-driven approaches that promise unparalleled efficiency and effectiveness.

The Standard Approach

In the traditional approach to security installations, decisions were made based on standard criteria: selecting cameras according to technical specifications, choosing processing hardware capable of handling data streams, and implementing a Video Management System (VMS) for centralised control.

If budget permits, video analytics might be integrated to enhance surveillance capabilities.

However, this method often lacked agility and adaptability, as it relied heavily on static systems and predefined rules.

Security measures were reactive, responding to incidents after they occurred, rather than proactively anticipating and preventing them.

This approach could leave vulnerabilities unaddressed until they were exploited, highlighting the need for a more dynamic and responsive solution.



Hospitals



Airports



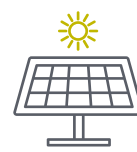
Shopping malls



University campuses



Borders



Solar farms



Pipelines



The New Paradigm

The emergence of artificial intelligence (AI) has ushered in a new era of security solutions, revolutionising the way we approach safety and surveillance.

Recent advancements in AI technology have transformed industries and everyday life, from predictive analytics in finance to natural language processing in customer service. In the realm of security, AI-powered analytics have become a game-changer, offering unprecedented capabilities in threat detection and response.

By harnessing the power of machine learning and deep learning algorithms, security systems can now adapt and evolve in real-time, continuously learning from data to identify patterns and anomalies.

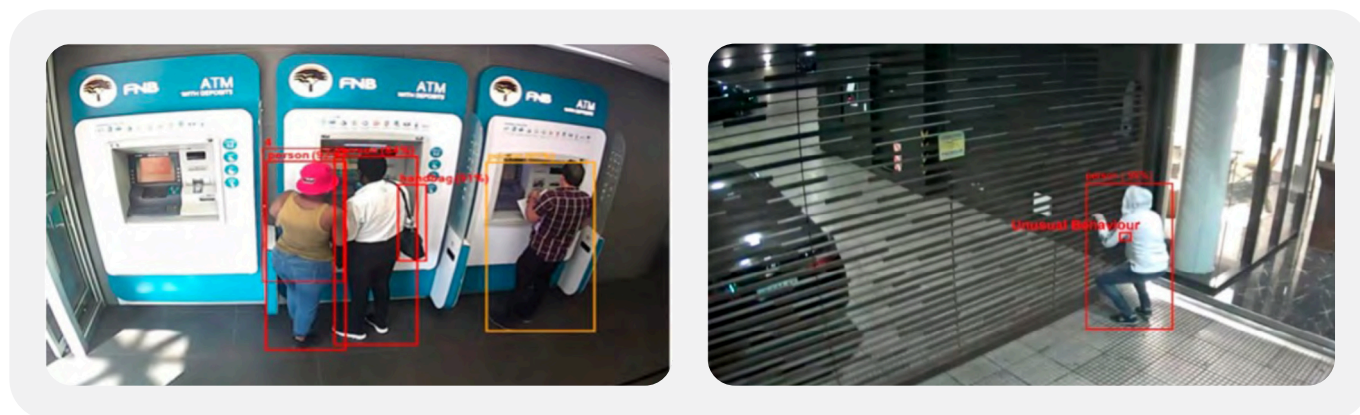
This shift towards AI-driven solutions marks a fundamental change in the security paradigm, where proactive prevention takes precedence over reactive measures. Instead of simply reacting to incidents as they occur, security systems equipped with AI can anticipate and mitigate risks before they escalate, significantly enhancing overall effectiveness and resilience.

Adapting to Use Cases

AI-powered video analytics redefine security by enabling systems to detect and respond to anomalies and unusual behaviour.

This raises a pertinent question: What should the system do when encountering unspecified threats?

The answer lies in the adaptability of AI algorithms, which are capable of recognising deviations from established patterns and triggering appropriate responses. Whether it's identifying unauthorised access, detecting erratic movements, or flagging suspicious behaviour, anomaly detection provides a crucial layer of defence against emerging threats.



The solution

How iSentry works

iSentry is an Artificial Intelligence-powered video analysis platform.

It can be installed on new systems as well as the vast majority of existing CCTV systems.

After a norm is established for a particular scene, the system will then create alerts based on exceptions or 'events of interest.' iSentry then classifies each event upon detection using Deep Learning tools and a logic engine.

This provides instant situational context to control room operators so that they can better understand what they are being shown, allowing them to respond appropriately.

iSentry can, for example, know that five or six men huddled around an ATM for a prolonged period may be an event of interest and it can differentiate and understand that a mother standing at the same ATM with her children is not a reason for alarm.

iSentry detects loitering, directional violation, unusual objects entering a scene, running, violence, tailgating, smoke and fire, major leakages, removed or introduced static objects, people climbing walls, entering a perimeter or area, or graffiti painting.

iSentry can also carry out pose analysis (whether someone is standing, sitting, lying on the ground or has fallen), and many other abnormal situations.

iSentry's powerful Logic Engine can largely and autonomously fulfill the function of a video surveillance operator.

More than 80% of the time it will be capable of reaching a correct decision regarding an event of interest, based on the number and combination of object types that trigger an alert, the time of day and object size, or even the likelihood of accurate classification.

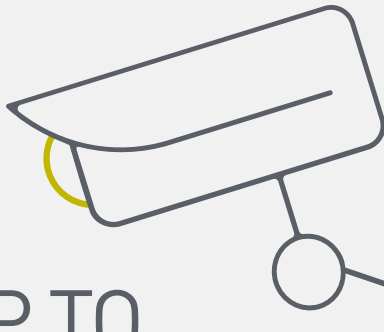
Any incident that iSentry cannot confidently classify automatically or determine through the rules engine whether to dismiss or alarm is then transferred to a human operator for further investigation and decision-making. iSentry empowers control room operators to solely focus on those decisions at which humans excel.

iSentry also enables control rooms to function effectively with **far fewer operators**, as massive quantities of video can be meaningfully and accurately monitored, and processed by the platform.

Equipped with the latest AI algorithms, iSentry **quickly learns what is normal** from an individual CCTV camera feed, so that it **can then detect the abnormal**. It can be deployed in systems from just a few cameras up to thousands of cameras.



The benefits of iSentry



UP TO
40%
REDUCTION
IN CAPEX

Fewer cameras needed and less related infrastructure

Effective monitoring with fewer cameras across your venue and estate

Maintain your current CCTV system iSentry is hardware-agnostic working effectively with most existing CCTV systems



UP TO
75%
REDUCTION
IN OPEX

Fewer operators needed

Operators can monitor 10x more cameras than before

Fewer false alarms

With fewer false alarms, costs related to unnecessary security personnel visits and interventions are reduced

iSentry is a smart, non-invasive security platform delivering high detection rates that does not use facial recognition technology nor any Personal Identifiable Information

The Benefits of Unusual Detection

The integration of **unusual detection** into security systems offers several key benefits. Firstly, it **enhances threat detection** capabilities by identifying deviations from normal behaviour patterns, even in the absence of predefined rules or signatures.

This **proactive** approach allows security personnel to stay ahead of potential threats, mitigating risks before they escalate.

Secondly, anomaly detection **reduces false positives** by focusing on genuine deviations that warrant investigation, **minimising unnecessary alerts** and conserving resources. This streamlines operational workflows and ensures that security personnel can prioritise responses effectively.

Moreover, anomaly detection enables **continuous learning and adaptation**, as AI algorithms evolve based on feedback and new data. This ensures that security systems remain agile and responsive in the face of evolving threats, without the need for manual intervention or rule updates.

In conclusion, the integration of AI-driven anomaly detection into security systems represents a significant leap forward in safeguarding assets and ensuring public safety.

All in all, **we are committed to championing this change paradigm**, where AI serves as the cornerstone of innovation and effectiveness in security operations.

Sustainability Benefits

Beyond enhancing security effectiveness, the adoption of AI in CCTV systems brings notable **sustainability** benefits.

One key advantage is the reduction in physical infrastructure requirements. AI-powered analytics enable **fewer cameras** to cover larger areas effectively. This translates to fewer resources needed for camera installation, including **reduced wiring** and lower demand for **active network devices**, thereby **decreasing energy consumption** and material usage.

Moreover, the intelligent capabilities of AI can lead to a decrease in the total number of cameras required. By efficiently monitoring and analysing video feeds, AI algorithms can identify areas of interest and focus surveillance efforts where they are most needed, eliminating the need for excessive camera deployments.

This not only reduces the environmental footprint associated with manufacturing and deploying additional cameras but also **minimises the visual impact** on the surrounding environment.

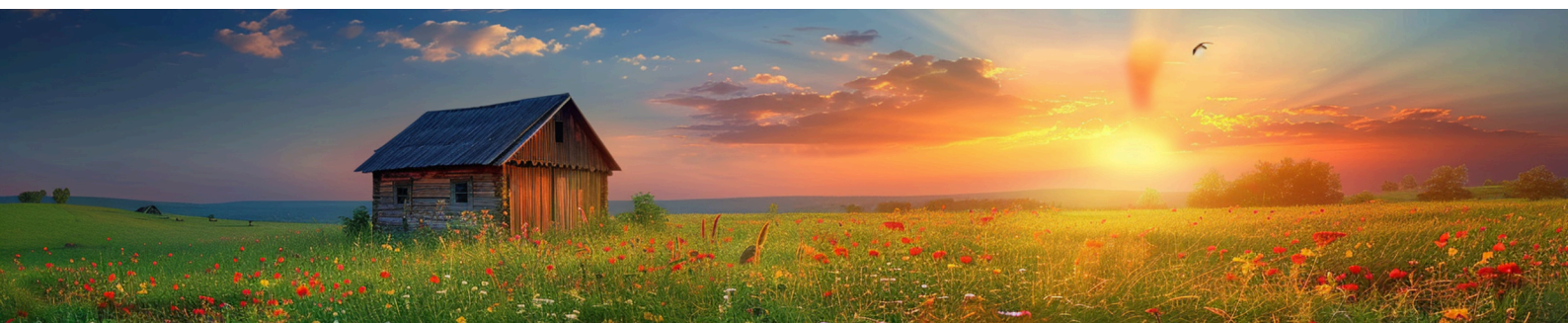
Additionally, the **implementation of AI in CCTV** systems can **lower labour costs** associated with surveillance operations.

With AI-driven analytics automating tasks such as monitoring video feeds, detecting anomalies, and issuing alerts, the need for human intervention is significantly reduced.

This results in **fewer personnel** required for surveillance activities, decreased reliance on transportation for on-site patrols, and ultimately, lower operational expenses.

Furthermore, the reduced need for physical infrastructure and personnel translates to **decreased energy consumption**, leading to **lower carbon dioxide emissions** associated with the operation of CCTV systems.

By optimising resource usage and minimising unnecessary activities, AI-driven CCTV systems contribute to a more environmentally sustainable approach to security surveillance, aligning with global efforts to mitigate climate change and reduce greenhouse gas emissions.



AI-powered CCTV analysis from iSentry



Major cost savings with a **90%-95% reduction in false positives** compared with most advanced camera analytics software systems



Operators can **monitor 10x** the number of cameras



Works with most existing **CCTV systems**



Used by governments and businesses **worldwide**

Our Platform, Your Solution