

# Solution Brief

AI Open Video  
Analytics Platform



## Elevating Security, Safety, and Business Insights with IRIS+™ AI Open Video Analytics Platform

Irisity's IRIS+™ open video analytics platform, powered by Intel® processors and optimized with the OpenVINO™ toolkit, offers a broad range of advanced video analytics that help enable any business to enhance security, safety, and business intelligence.

accelerated by **intel.**

### About Irisity

Irisity is an emerging leader in innovation and security, specializing in AI video analytics for security and safety needs. Operating for over twenty years, Irisity has quickly expanded its team to serve customers in more than ninety countries. With a strong focus on leveraging AI and machine learning, Irisity drives the development of advanced algorithms that transform conventional security infrastructure into intelligent devices while adhering to required privacy standards. Headquartered in Sweden, with branches in Israel, USA, Colombia, Brazil, Argentina, Mexico, UK, Australia, Singapore, and UAE, Irisity is committed to delivering high-performance security solutions on a global scale. By partnering with a vast network of over 1100 resellers, partners, and camera manufacturers, Irisity ensures widespread accessibility and seamless integration for customers in multiple sectors.

### Transforming Legacy Situational Monitoring Systems through Artificial Intelligence

In the evolving landscape of situational monitoring, traditional methods of protecting assets, supervising threats, and ensuring public safety can leave organizations vulnerable. Outdated security systems struggle to keep pace with evolving threats, which can lead to higher risks of break-ins and theft, property damage, and safety incidents like fires or leaks. Failure to safeguard businesses or environments from increased risks of safety and security incidents can translate to financial losses, operational disruptions, and the loss of employee and customer trust, ultimately impacting personnel well-being.

Conventional or closed-circuit TV (CCTV) security systems often rely on expensive, dedicated control rooms which are resource intensive, time consuming, and limited in scalability. Manual monitoring methods conducted by on-site personnel simply cannot keep pace with the vast amounts of video footage recorded by modern security systems, leading to thousands of hours of footage going unreviewed. Furthermore, inadequate security operations can expose employees and customers to physical harm, posing significant liability risks for businesses and compounding potential costs.

As technology evolves, the need for more efficient and adaptable situational monitoring solutions is becoming increasingly clear. AI solutions powered by computer vision (CV) present a transformative opportunity to enhance situational monitoring. Unlike traditional CCTV systems, CV solutions can operate autonomously, reducing the need for dedicated control rooms and around-the-clock staffing, which helps organizations to cost-effectively keep pace with emerging threats and technological advancements.

In addition, AI-driven monitoring can not only enhance efficiency and reduce resource costs, but also empowers organizations to intelligently harness their data. The thousands of hours of video footage from security systems that go unreviewed in manual systems contain vast amounts of data and insights that organizations are leaving on the table. With AI systems, businesses can quickly analyze mass amounts of video footage for user-friendly, actionable insights that help identify trends, risks, and bottlenecks in existing processes, as well as automatically alert security personnel of current threats in near real-time.

Irisity is an emerging leader in the field of digital innovation that specializes in AI-driven solutions tailored to improve situational monitoring systems. They recognized the opportunity to help businesses modernize their situational monitoring operations and improve safety and security. Irisity's IRIS+™ platform is a comprehensive smart analytics solution that helps safeguard people and environments across multiple industries by detecting incidents in near real time, ranging from intrusions and trespasses to flames and falls.

## The IRIS+™ Open Video Platform Solution

Irisity's security solution leverages the power of AI and machine learning algorithms to transform existing camera infrastructure into an intelligent situational monitoring system. This emphasis on compatibility helps to minimize initial costs by working seamlessly with the existing environment. IRIS+™ provides reliable detection quality and reduced security costs, making it a compelling solution for a wide range of security needs.

By capturing security video data and extracting actionable insights through rapid search and analysis, IRIS+™ empowers businesses to identify trends, prioritize critical areas for process improvement, and gain a deeper understanding of their security landscape. Through seamless integration into a variety of security systems, IRIS+™ users can unlock new capabilities that strengthen security measures, enhance situational awareness, identify opportunities for operational improvement, and ensure the safety of assets and well-being of communities. On top of this, Irisity boasts a strong commitment to ethical guarding without compromising data or personal privacy, using patented near real-time anonymization technology to ensure personal privacy information is not captured. Users can reap the benefits of a smart security solution with the reassurance that employee and customer privacy is protected.

This two-part design, powered by Intel® technology, helps ensure reliable video processing wherever cameras are placed. Powerful central analysis lets users identify and address security threats quickly. With secure and adaptable components, IRIS+™ tailors itself to specific needs, providing a smarter way to keep both people and places safe.

## The IRIS+™ video analytics system takes a smarter approach to monitoring with two key parts working together, IRIS+™ Edge and IRIS+™ Core.

- On-site intelligence (IRIS+™ Edge): Powerful edge devices built on Intel® Core™ processors and Intel® Xeon® processors analyze video directly from security cameras via RTSP (Real-Time Streaming Protocol) and conduct inferencing. These units are flexible and can be pre-configured devices installed on a customer's own hardware, depending on their needs. No matter the setup, the system can handle any number of cameras by scaling up or adding more units.
- Centralized control (IRIS+™ Core): A secure central hub stores all system information and settings. This is where system management and advanced video analysis happen, using data from on-site IRIS+™ Edge units. This central hub can be hosted in the cloud for easy access or run on customers' own servers for maximum control.

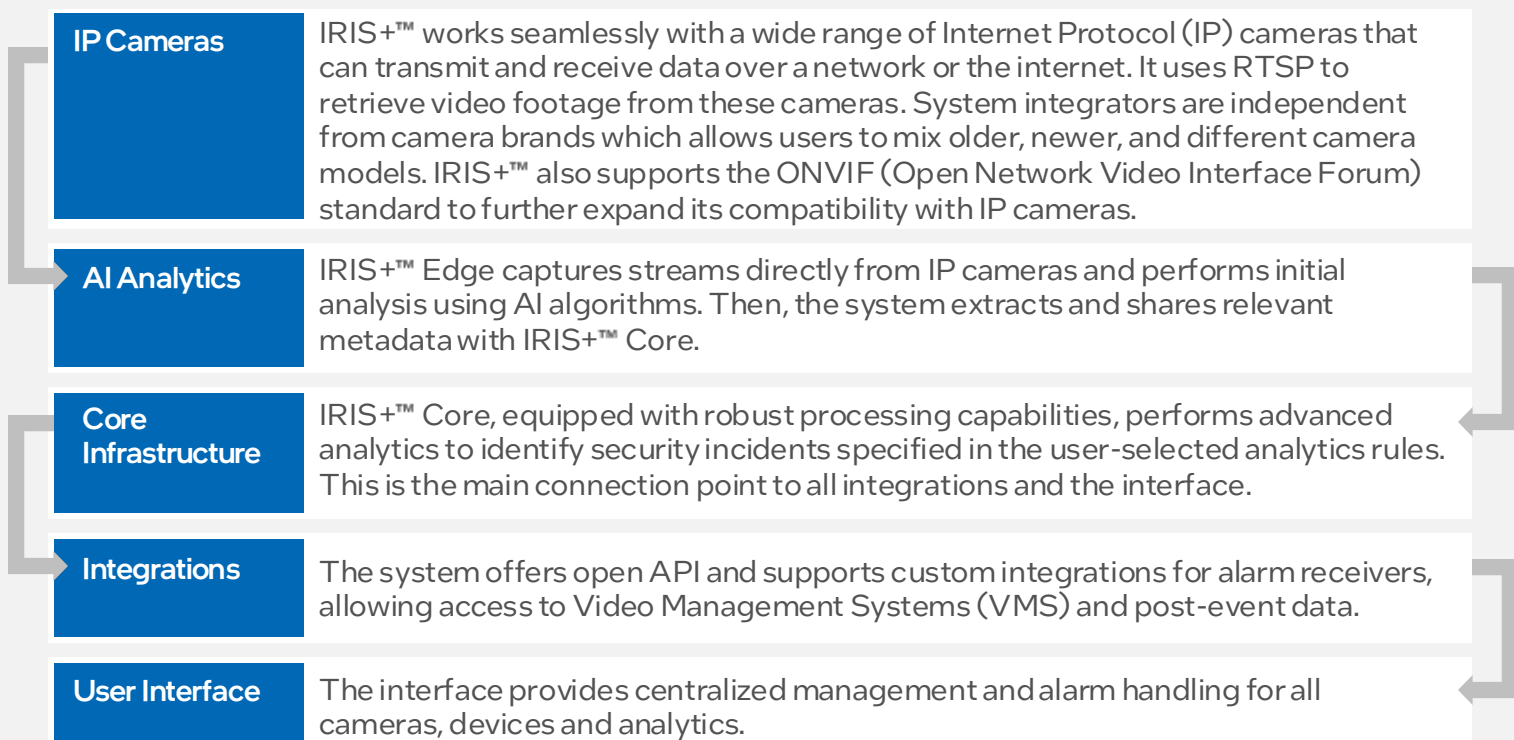


## Irisity's AI Agents

Irisity's "AI Agents" are digital assistants designed to learn user-defined activities and perform specific detection capabilities. 24/7 monitoring allows AI Agents to continuously generate valuable metadata, making them smarter and more aligned with user preferences through every interaction.



## How IRIS+™ Works



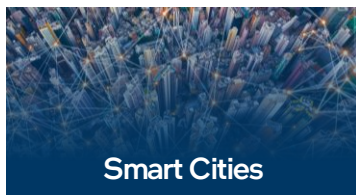
## Tailored Security for Any Environment

Thanks to the IRIS+™ patented distributed architecture, organizations can choose from cloud, hybrid, or on-premise deployment without sacrificing flexibility and ease of use. For all deployment options, users can choose pre-configured hardware or use existing infrastructure.

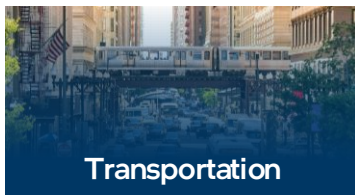
With its tailored deployment options, focus on ethical practices, and compatibility with legacy infrastructure, IRIS+™ is suited for many verticals including transportation, smart cities, critical infrastructure, central monitoring, education, and healthcare. IRIS+™ boosts situational monitoring operations with AI Agents to recognize incidents that require a response in near real-time.



Critical Infrastructure



Smart Cities



Transportation



Healthcare



Retail



Education

## IRIS+™ Key Capabilities



**Remote Accessibility & Centralized Management Portal:** The centralized portal monitors all cameras and system integrations in one place. It can be managed from anywhere, anytime, using a standard web browser, providing high convenience and control.



**Near Real-Time Actionable Insights:** The solution's centralized portal provides immediate visibility into security threats with near real-time detection, investigation, and operational insights, helping users make informed decisions and react quickly to potential threats.



**Investigation / Post-incident Analysis:** Easily find critical events in stored video footage. IRIS+™ extracts metadata from video feeds, which allows for quick searches based on a wide range of attributes and qualities.



**High Versatility:** IRIS+™ operates independently of users' existing camera system or video management system, which ensures seamless integration and helps reduce up-front costs.



**Uninterrupted Service:** IRIS+™ prioritizes service availability. It offers full redundancy and seamless automatic backups and upgrades, enabling security systems to remain operational 24/7.

## IRIS+™ Benefits for End Customers and System Integrators

**Irisity detects the most important details of security threats by rapidly searching and analyzing recorded video.**

- **Enhanced Accuracy and Reliability:** The solution delivers enhanced video analysis and trusted reliability, ensuring security systems identify threats quickly. Through optimized threat detection and near real time alerts, IRIS+™ helps to minimize instances of false alarms. This translates into fewer wasted resources and a more focused security landscape.
- **Effortless, Affordable Scalability:** To accommodate evolving security needs and data processing capabilities, IRIS+™ can scale from operations with five to ten cameras up to multi-site, multi-tenant installations. IRIS+™ leverages distributed architecture, allowing for deployment across different regions or data centers. Additionally, IRIS+™ can extend its deep learning video analytics to any IP camera, which eliminates the need for costly hardware upgrades, lowering upfront costs as well as maintenance expenses. Through effective load balancing and failover strategies, incoming workloads are evenly distributed across numerous servers, optimizing resource utilization and maintaining reliability.
- **Reduced Labor Costs and Increased Operational Efficiency:** Irisity's IRIS+™ system provides reliable video processing and minimizes false alarms to facilitate more efficient operational workflows. By automating processes that were previously done by security personnel, employees can instead focus on other value-added tasks, such as timely intervention when facing security threats.

## Irisity Partners with Intel to Optimize IRIS+™ Performance

Irisity's IRIS+™ solution is built on powerful CV technology that is enhanced thanks to cutting-edge components from Intel. Intel® Core™ and Intel® Xeon® processors give the system the power it needs to perform complex tasks, while the OpenVINO™ toolkit helps developers build and deploy IRIS+™ quickly and affordably.

**Intel Core processors:** The solution uses and supports Intel Core processors, which are built to run complex AI workloads. The integration of Intel Core processors facilitates near real-time inferencing at the edge, enhancing the adaptability of IRIS+™ across various computing environments. Additionally, leveraging Intel Core processors improves affordability, as they eliminate the need for expensive and large servers for small customer sites.

**Intel Xeon processors:** Irisity cloud and on-premise customers level up their IRIS+™ solution with the help of Intel Xeon processors. These processors, which are used in large customer sites, are designed with high performance built-in accelerators and help support critical AI workloads with a wide array of Intel Xeon processor options to right-size the hardware for specific performance needs. By integrating graphics capabilities on the IRIS+™ Core server, Intel Xeon processors eliminate the need for third-party add-in GPU cards at the IRIS+™ Edge server, contributing to a lower cost per channel. In addition, integrating Intel Xeon processors on large systems with heavy workloads provides reliable performance over time.

**OpenVINO toolkit:** Irisity's IRIS+™ is enhanced with the OpenVINO toolkit, a powerful tool designed to facilitate the development of machine learning applications. The OpenVINO toolkit expedites the creation of IRIS+™ deep learning algorithms, producing faster results and improving accuracy. This creates an easier deployment process for Irisity customers through Intel hardware, from edge devices to cloud servers. A significant advantage of the OpenVINO toolkit is its ability to optimize neural networks for efficient operation on edge devices, which allows Irisity to maximize the amount of video streams supported by an edge device, thus reducing hardware requirements and costs for customers.

## Why Validating Matters

By validating with Dell in the Intel® AI Lab, Irisity has positioned its solution for:

### Simplified AI deployment



An all-in-one preconfigured solution means no need to purchase and experiment with individual components.

### Cost-effective performance



The specified system can be tested and proven to deliver the right level of performance to reach desired deployment goals.<sup>1</sup>

### Accelerated time to value



Ready right now, Irisity IRIS+™ enables fast, easy AI adoption to start identifying opportunities for improving security and cost savings upon implementation.

## IRIS+™ Pre-Validated in the Intel® AI Lab

Intel's validation lab for AI solutions offers comprehensive, preconfigured remote testing on the latest hardware. Irisity recently participated in testing with the AI Validation lab to validate the accuracy of IRIS+™ for near real-time video analytics. In collaboration with Intel experts, the testing refined the solution for optimal performance and ensured a smooth user launch. By choosing a pre-validated solution like IRIS+™, customers can avoid the complexities and significant costs associated with deploying AI video analytics from scratch. This convenient approach allows Irisity customers to achieve faster implementation and therefore quicker security improvements.



Irisity was able to use Intel's AI solution validation lab to quickly test and benchmark our latest IRIS+™ software release on servers running a variety of Intel Xeon processors and create detailed hardware sizing data for our partners and customers."

— Zvika Ashani, CTO, Irisity



## IRIS+™ Success Story: Driving Proactive Crime Prevention for the Municipality of Vicente López, Argentina



### Challenge

The municipality of Vicente López near Buenos Aires, Argentina faced a distinct security challenge as an affluent area that remained vulnerable to crime, such as commercial theft. In 2012, local politicians aimed to transform Vicente López into a “Safe and Smart City,” a city that proactively prevents crime. Their existing security system was a major roadblock—it was not feasible for security operators to conduct real-time monitoring on high volumes of video footage as well as respond to threats proactively.



### Solution

Vicente López needed an intelligent solution to leverage the potential of their existing camera infrastructure, aiming to foster a safer and smarter urban environment. In response, IRIS+™ was deployed in the city’s Urban Monitoring Center. Equipped with customized AI, IRIS+™ was tailored to swiftly identify suspicious activities, particularly those involving two people on a motorcycle, such as instances of kidnapping and theft. Optimized with tailored AI technology for detecting “2 people on a motorcycle,” IRIS+™ enhanced law enforcement’s ability to promptly detect and address a range of concerning incidents, including motorcycle thefts, cell phone thefts, and more.



### Results

Vicente López residents are benefiting from the integration of IRIS+™. With Irisity’s customized capability to detect “2 people on a motorcycle,” public authorities can prioritize critical tasks, saving operator time and effort, optimizing workforce allocation and reducing costs associated with recording hardware. Residents have reported a heightened sense of safety and municipal authorities have a better handle on crime rates by anticipating incidents and intervening quickly. Additionally, this comprehensive security approach helped Vicente López gain global recognition for its commitment to the Smart City movement.<sup>2</sup>

### Conclusion

Irisity’s robust video analytics solution represents a significant opportunity for security operations to fight security threats. IRIS+™ allows organizations to streamline situational monitoring through a centralized platform for near real-time detections. To enhance business operations, the solution preserves valuable time and resources by reducing the need for manual monitoring and detection, allowing security personnel to focus on fast responses. Additionally, IRIS+™ is designed to be scalable, minimizing expenses as security needs evolve. IRIS+™ safeguards assets and environments while adhering to stringent personal privacy standards. Intel® Core™ and Intel® Xeon® processors combined with the OpenVINO™ toolkit power IRIS+™, providing the foundation for its advanced video analytics capabilities as well as its agility to scale. For more information on how Irisity’s CV solution can optimize your security system, explore Irisity’s website for updates and guidance on getting started.

## Learn More



### To learn more about Iriscity visit:

- [Iriscity Website](#)
- [Iriscity IRIS+™: Smart Security with Validated Video Analytics Article](#)
- [Iriscity IRIS+™ 2024 Brochure](#)



### To learn about Intel® technologies visit:

- [Intel® Core™ Processors Product Page](#)
- [Intel® Xeon® Processors Product page](#)
- [Intel® Distribution of OpenVINO™ Toolkit Product Page](#)



## Sources

1. "Iriscity Performance and Validation Report for Integration on Dell EMC PowerEdge 750 – Report." Intel, April. 6, 2024. [Link](#).
2. "Iriscity Enables Proactive Crime Prevention and Smart Decision-Making." Iriscity, Sep. 1, 2023. [Link](#).



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