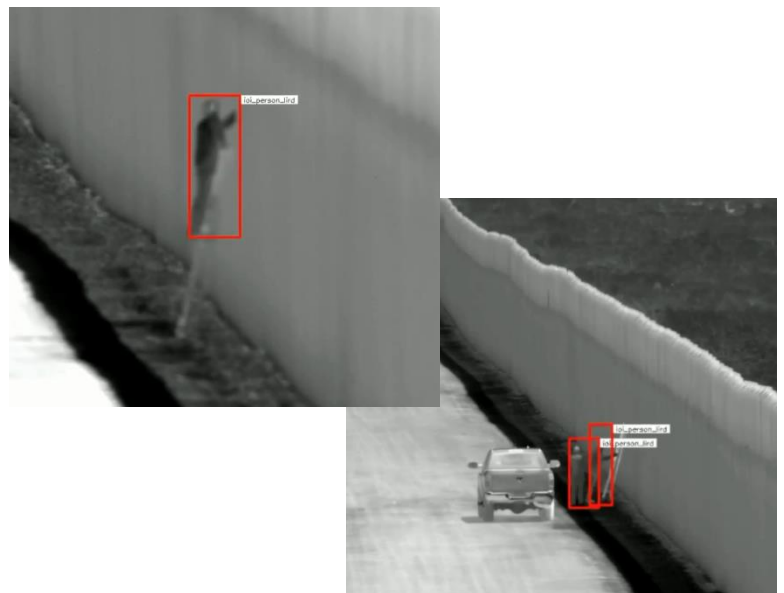**Equitus.ai**

Equitus
Video Sentinel

Turn Every Camera into an AI-Powered Sentinel
Always Watching, Always Analyzing, Always Knowing

Key Capabilities

- **Comprehensive Object and Behavior Recognition**
  Automatically detects perimeter intrusions, item removal, loitering, and other anomalies by classifying people, vehicles, and objects in varied conditions.

- **Real-Time Alerts and Intelligent Threat Response**
  Advanced AI analytics continuously monitor for unauthorized access, safety hazards, and suspicious activity, sending notifications to operators in near-real-time.

- **Enhanced Forensic Analysis**
  Capture rich metadata, including size, color, and motion behavior attributes, to instantly[1] search video archives..

- **AI-Driven Accuracy on IBM Power™ servers**
  Powered by IBM Power10, delivering robust, GPU-free analytics that scale to large networks. It keeps hardware and energy costs manageable while preserving the ability to keep sensitive data on-premises.

- **Open, Extensible, and Seamless Integration**
  EVS empowers real-time ingestion and analysis, seamlessly integrating with leading VMS platforms and existing camera networks to ensure compliance and optimize your ROI.

Equitus

Equitus Video Sentinel (EVS) is a comprehensive intelligence platform designed to empower law enforcement, transportation authorities, defense organizations, healthcare providers, critical infrastructure operators, city planners, and industrial managers to respond swiftly and effectively to evolving threats. EVS automatically captures and **continuously analyzes video footage in real time**, promptly **flagging anomalies or suspicious activities** for immediate review. This proactive approach enables teams to anticipate potential risks, optimize incident management, and gain deeper insights from historical data. By staying ahead of emerging security challenges, organizations can enhance their operational readiness and secure critical assets, safeguard public spaces, and elevate their overall security posture. EVS provides the robust investigative capabilities necessary to ensure the protection of critical infrastructure, the safety of public spaces, and the overall efficiency of operations.

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[1] Metadata typically available in the sensor data lake in under 500ms

From Passive Monitoring to Intelligent Analytics

Traditional surveillance systems can overwhelm operators with vast amounts of video footage, providing limited actionable insights. EVS revolutionizes security by **transforming passive camera feeds into an intelligent and comprehensive solution.** It employs advanced AI models to interpret behaviors, track objects across multiple streams, and identify patterns indicative of potential threats. Real-time alerts, coupled with deep forensic analysis, form a comprehensive framework for preventing, identifying, and investigating incidents, while simultaneously reducing the burden on security teams.

EVS employs deep learning and computer vision algorithms to continuously enhance its detection capabilities by analyzing environment-specific data. The open architecture facilitates seamless integration of third-party analytics and specialized AI modules, such as license plate recognition, facial matching, or sensor data, into the broader operational framework. This flexibility empowers organizations to customize alerts, implement new detection rules, and respond effectively to evolving threats without the need for extensive infrastructure rebuilding.

Real-Time Alerts	Indexing and Search
• Motion detection • Trip wire or area violation • Object removal or abandonment • Counter flow detection • Tailgate detection • Facial capture • Facial recognition via third-party products • License plate recognition via third-party products • Combination alerts • Customized alerts • Loitering • Directional motion • Excessive speed of vehicle or person	• People search: hair color, head (hat) color, speed, eyeglasses/sunglasses, torso pattern • Vehicle search: size, colors, speed, vehicle type • Date and time ranges • By location, in field of view • License plate search (partial or full) • Across multiple cameras • Track objects in view • Attributes-based search • Face search • Counting • Object confidence scoring

Architecture and Integration in Practice

EVS is thoughtfully designed for seamless **interoperability**, ensuring that organizations can effortlessly **preserve their existing investments in cameras and network infrastructure.** This versatile system seamlessly integrates with both analog and digital streams, meticulously analyzing each frame to discern pertinent objects, movements, or behaviors. All pertinent findings are promptly indexed for rapid retrieval, empowering users to swiftly search across multiple camera feeds.

Data transmission within the environment is securely maintained, scaling effortlessly from a single camera to a vast network spanning thousands of cameras, whether safeguarding a solitary facility or a network of national assets.

EVS also integrates with advanced intelligence solutions. Paired with the Equitus Knowledge Graph Neural Network (KGNN), it correlates video detections—such as people, objects, or vehicles—with broader data sources such as watchlists, access logs, or organizational records. This layered approach provides deeper insight into suspicious behavior, revealing the who, what, where, when, why, and how (W5H) behind each incident.

EVS integrates AI-powered surveillance capabilities into existing systems, requiring minimal to no network and sensor asset modifications.

✅ **Enhanced Security**: Prevent and detect breaches before escalation.

✅ **Risk Reduction**: Identify hazards and mitigate threats.

✅ **Incident Response**: Instant alerts and insights maximize operational efficiency.

✅ **Operational Intelligence**: Optimize decision-making with AI-driven insights.

✅ **Improved User Experience**: Create a safer, more secure environment.

Where EVS Can Deliver Impact

Public Safety and Law Enforcement

Automated detection of prohibited behaviors, such as unauthorized gatherings, vandalism, and individuals lingering near restricted areas, empowers local authorities to respond swiftly and effectively to real-time threats. Additionally, forensic indexing plays a crucial role in investigations by expediting the identification of suspects and reconstructing incident timelines.

Perimeter and Border Protection

Continuous monitoring of fences, checkpoints, and smuggling routes enables the identification of unauthorized crossings, suspicious vehicles, or misplaced objects across vast border regions. These detections seamlessly integrate with broader intelligence tools, providing a unified perspective that facilitates swift and decisive patrol responses.

Military and Defense Installations

High-security perimeters can benefit from more than just simple motion triggers. Advanced analytics and customizable alerts can help detect concealed intruders, unusual vehicle activities, or other potential threats. Environment-specific model training helps reduce false positives, leading to operational efficiency and minimizing disruptions.

High-Security Perimeters

Critical infrastructure sites, such as power plants, data centers, and chemical facilities, necessitate enhanced situational awareness. Equitus EVS monitors suspicious patterns, like off-hour activity or potential equipment tampering, and seamlessly integrates with existing access control systems to verify the authorization of individuals present.
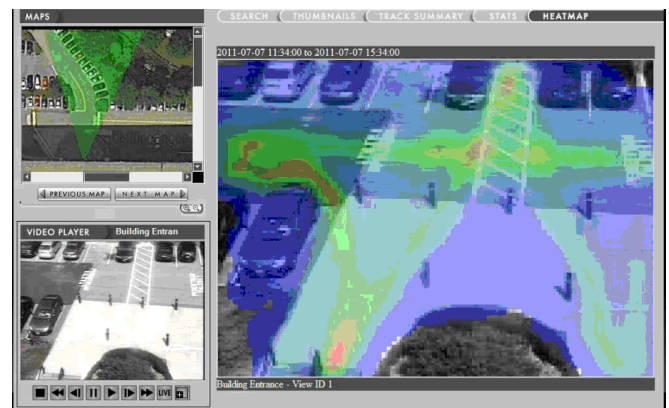

Industrial and Commercial Environments

EVS plays a crucial role in ensuring compliance and operational efficiency across various industries. From warehouse logistics to large-scale manufacturing, EVS pinpoints compliance breaches, such as missing personal protective equipment (PPE), and operational inefficiencies, like unattended machinery or unexpected hazards. In retail environments, EVS provides a valuable tool to correlate foot traffic metrics with loss prevention strategies, ultimately leading to enhanced staff productivity and resource allocation.

Transportation and Smart Cities

Airports, rail stations, and high-traffic urban centers gain substantial advantages from Equitus EVS's ability to identify unattended luggage, track crowd density, and detect disruptions to passenger movement. By combining real-time detection with historical pattern analysis, operators can optimize schedules, prevent bottlenecks, and ensure safer public spaces.

Equitus.ai

Seamless Deployment & Integration

Data sovereignty and compliance continue to be paramount considerations. Therefore, Equitus Video Sentinel is optimized for on-premises deployment while simultaneously supporting a hybrid cloud model. This flexibility ensures that the entire system can operate securely within an organization's data center, thereby meeting privacy and regulatory requirements. The platform can commence as a single-site pilot and effortlessly expand to an enterprise-wide rollout spanning multiple facilities.

Incorporating Existing Infrastructure

EVS is engineered to preserve existing investments in both analog and digital cameras. As a vendor-agnostic solution, it seamlessly integrates with leading Video Management Systems (VMS). Customized analytics, such as license plate recognition or facial recognition, can be integrated as required, and integration with third-party dashboards (e.g., Tableau, Microsoft Power BI, i2 Analyst's Notebook) further enhances system capabilities.
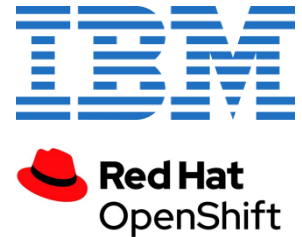
Ease of Use & Configurability

A user-friendly interface empowers teams to define Areas of Interest (AOI) for intrusion detection, configure customized alarms, and establish sophisticated event triggers without the necessity of specialized coding. Minimal training is required, enabling teams to swiftly implement best practices and derive immediate value from EVS.
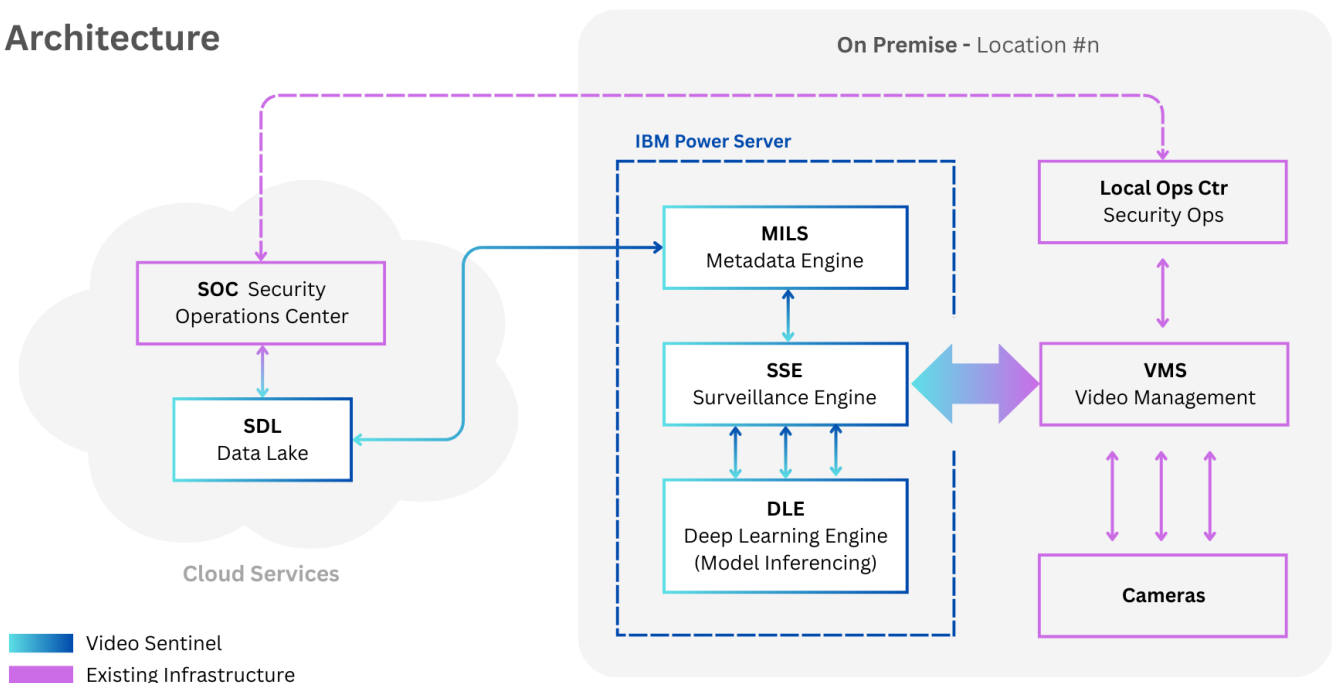
Secure, Cost-Effective, and Scalable

Unlike other AI solutions that require expensive GPU-based infrastructure, EVS is **optimized for IBM Power™ servers with MMA technology (GPU free)**, thereby running AI efficiently at the edge without reliance on cloud services. This ensures **lower costs, higher performance, highly available systems, and full data control.** EVS is also tuned for **Red Hat Enterprise LINUX (RHEL)** and **Openshift Container Platform (OCP).**

Its scalable architecture allows for deployment in a single location or an entire enterprise, ensuring a future-proof solution that adapts to changing security requirements.

IBM

Red Hat OpenShift

Architecture

AI-Driven Video Analytics

Why Choose Equitus EVS?

Faster Responses.
Lower Costs.
Immediate Results.
Holistic Security.

Faster, Smarter, and More Accurate

High-Performance Processing: Engineered to handle thousands of video streams simultaneously, with economical hardware footprint.

AI-Driven: Deep learning algorithms can be adapted to new threat patterns, continuously improving accuracy.

Cost-Effective & Scalable

GPU-Free Optimizations: Running on IBM Power10 (MMA) reduces power and cost compared to GPU-centric solutions.

Modular Architecture: Start with a single site or proof-of-concept and scale to enterprise-wide rollouts without losing performance.

Very Low TCO:
The total cost of ownership (TCO) is a critical factor in these systems. When analyzing down-sampled video streams, reduced CPU or GPU/MMA usage is achieved, leading to smaller hardware requirements. This, in turn, results in lower power consumption, reduced UPS loads, and a smaller cooling footprint.

- EVS brings AI-driven surveillance to your existing systems—**no changes needed**.

- Sentinel boosts situational awareness, cuts down on inefficiencies, and **transforms passive monitoring** into a powerful, **intelligent security force multiplier**.

- By **automating what humans miss**, EVS helps eliminate blind spots and prevent costly incidents.

- Equitus **delivers Rapidly-Actionable Intelligence** to people with a need to know.

Built on Trust & Expertise

Rooted in Real-World Use: EVS is deployed in national security border solutions and public safety critical systems.

IBM Partnership: Endorsed by IBM's resilient Power10 architecture teams, together we ensure stability and security.

Global Support & Integration: Equitus provides comprehensive training, customization, and ongoing assistance.

"**Equitus Video Sentinel**—because surveillance alone isn't enough. Empower your cameras with **true intelligence** and transform your security strategy from reactive to proactive."

About Equitus

Equitus specializes in AI-driven video analytics and intelligent data unification, delivering advanced solutions that transform surveillance and operational intelligence. Equitus provides comprehensive intelligence platforms that empower organizations to detect threats, correlate critical information, and respond with precision across security, defense, industrial and enterprise environments.

Our solutions have been actively deployed in defense, federal agencies, and highly secure environments requiring clearance, adhering to the highest security and reliability standards. Additionally, some deployments remain confidential due to security and operational sensitivities..

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