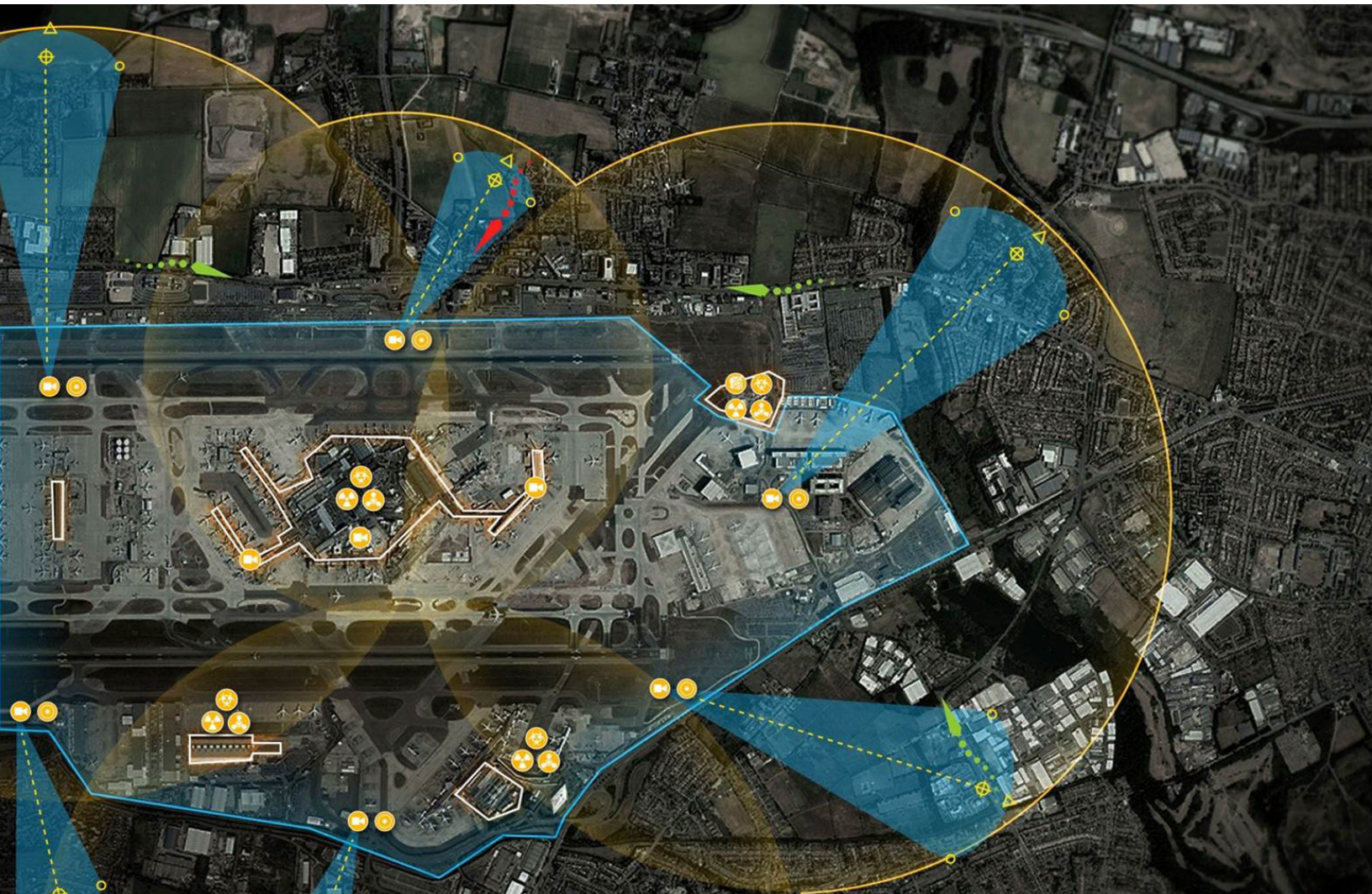


Intelligent Asset Management

Leak & Intrusion Detection



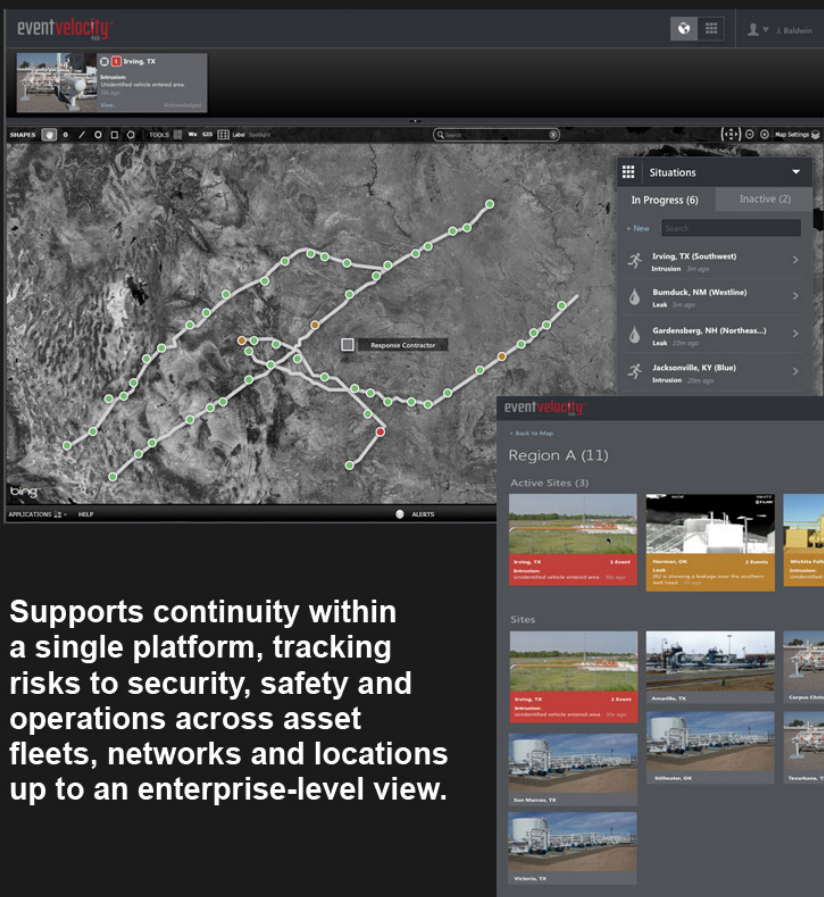
Leak & Intrusion Detection

Real-time situational awareness to improve incident response is the difference between normal process corrections and recovering from expensive interruptions.

AECOM brings a breadth of capabilities across physical, cyber, and wireless domains; life-cycle management from design through installation, commissioning, operations, and sustainment; and a suite of automated leak detection platforms to detect gas/oil leaks, monitor critical assets, and provide real-time security surveillance that pinpoints breaches, provides forensic data, and creates a predictive analytic capability.

AECOM offers an integrated asset management and security solution to protect our clients' business, operations, infrastructure (physical and IT), and personnel. Our solution includes Leak Detection, ICS/SCADA correlation, activity/intrusion detection, unmanned aircraft systems, and advanced event management software. The resulting system provides 24/7, autonomous detection, improves incident response cycles, minimizes organizational and reputational risk, and improves business continuity. The full complement of asset protection and information security technology solutions include:

- Intrusion Detection
- Leak Detection
- Intelligent Full Motion Video
- Conceptual Development Integration
- Security Compliance
- Technical Security Countermeasures
- Unmanned Aircraft Systems



The screenshot displays the 'event velocity' software interface. The top section shows a map with several green and red markers indicating active sites. A sidebar on the right lists 'Situations' with categories 'In Progress (6)' and 'Inactive (2)'. Below the map, there are two panels: 'Region A (11)' showing 'Active Sites (3)' with thumbnails for various locations, and a 'Sites' grid with more thumbnails. The interface includes navigation tools, search bars, and user profile information.

Links all sites under one easy to monitor platform

Supports continuity within a single platform, tracking risks to security, safety and operations across asset fleets, networks and locations up to an enterprise-level view.

Event Management platform allows multiple people to view incidents, interact, follow ConOps, and share data about an ongoing situation, enabling quick resolution

Real-time, enterprise-wide, 24/7 awareness and alerting of unauthorized activity and hydrocarbon gas leaks, to improve safety, security, and incident response management

AECOM recognizes that a single event can result in significant safety, operational, reputational, and financial consequences. As part of the solution, AECOM developed a client-specific Enterprise Risk Analysis Program (eRAP) to assess, design, implement, and manage integrated security process solutions for critical infrastructure systems and information.

Enterprise Risk Analysis Program (eRAP)

Unmanned Aircraft Systems

- AECOM is a systems agnostic Unmanned Aircraft Systems (UAS) Provider
- Awarded an FAA 333 Exemption for small UAS employment

Automated Leak Detection Platforms

- Fixed Platform
- Detects 20 different Hydrocarbon gases
- Predictive mathematical model

Intrusion Detection and Tracking (a virtual perimeter)

- Geospatial intrusion & behavior detection
- 3D model based video analytics
- Multi-sensor composite panoramic view
- Meta Data Engine - separates data from the image
- Field Upgradeable /FPGA Technology

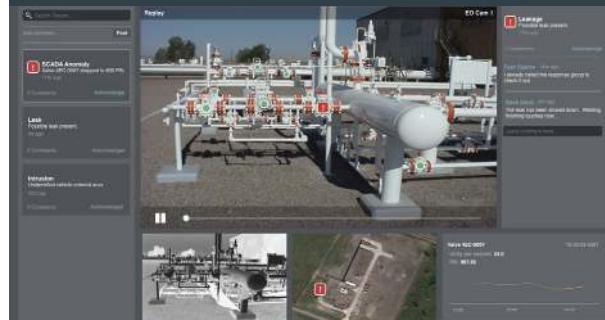
Secure, bi-directional ICS/SCADA integrated & synchronized with intelligent video to provide real-time, "eyes — on" alerts, and a multi-sensor view of real time operations.

Benefits of leak and intrusion detection system include:

- Real-time awareness of unauthorized activity and hydrocarbon gas leaks from the moment of occurrence.
- Visibility across the operating asset fleet
- Automatic alerts correlated with video to provide complete situational/ incident awareness
- IT integration & information assurance engineered at the system & component levels
- Support compliance with security, safety and environmental regulations
- Extremely accurate detection with low false alarm rates

Detection-as-a-Service (Daas)

- AECOM offers "as-a-service" financing alternatives to meet today's challenging CapEx environments
- Monthly payments can include all installation, commissioning, monitoring, warranties, and ongoing maintenance of all equipment through the life of the contract



Gases Detected include: Benzene, Ethanol, Ethylbenzene, Heptane, Hexane, Isoprene, Methanol, Methyleneethylketone, MIBK, Octane, Pentane, 1-pentene, Toluene, m-xylene, Ethane, Butane, Methane, Propane, Ethylene, Propylene



Extensive military & commercial UAS experience — applying military-grade capabilities to solve today's remote asset monitoring and protection challenges for Oil, Gas & Utilities

About AECOM

AECOM is built to deliver a better world. We design, build, finance and operate infrastructure assets for governments, businesses and organizations in more than 150 countries. As a fully integrated firm, we connect knowledge and experience across our global network of experts to help clients solve their most complex challenges. From high-performance buildings and infrastructure, to resilient communities and environments, to stable and secure nations, our work is transformative, differentiated and vital. A Fortune 500 firm, AECOM had revenue of approximately \$18.2 billion during fiscal year 2017.

See how we deliver what others can only imagine at aecom.com and [@AECOM](https://twitter.com/AECOM).

Contact

Rich Johanning
210.265.3289
210.608.5855 (cell)
rich.johanning@aecom.com

