

Active Analytics for the Public Sector

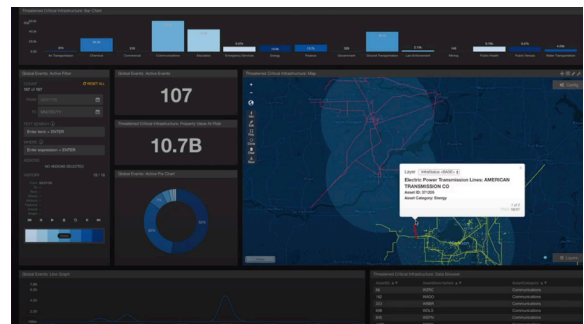
Public sector organizations want to harness data to solve increasingly complex challenges. This requires a new class of data-driven applications for driving actionable insight, whether it be identifying national security threats in real-time, processing and analyzing IoT and edge data at scale, modeling complex disaster risks, proactively defending against and hunting for cyber threats, or enabling dynamic logistics and supply chain.

The Kinetica Active Analytics Platform

Kinetica Active Analytics combines streaming, historical, graph, and geospatial visualization and analysis with machine learning in one platform, so government agencies accelerate their digital transformation and create new, data-powered applications and services. Kinetica offers a solution that can help to modernize core infrastructure, increase efficiency, and deliver real-time insight. From its inception, Kinetica was built to meet the needs of the public sector, from delivering high-resolution geospatial analytics and consuming real-time streaming data, to enabling AI-driven applications. With the explosion of IoT and edge devices, more real-time data feeds, and the increasing importance of location awareness and analytics, Kinetica offers an architecture that can enhance current applications and support future ones as well.

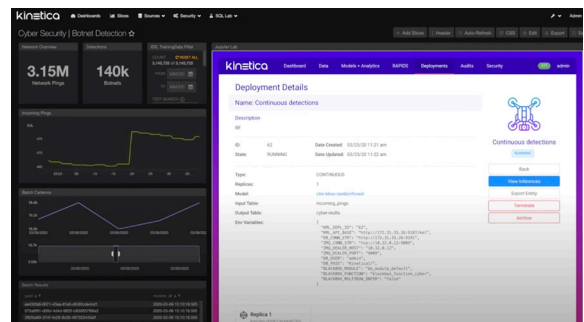
REAL-TIME ACTIONABLE INTELLIGENCE

- **Anomaly Detection**
- Run real-time analysis and visualization on hundreds of different streaming, historical, and geospatial data feeds to instantly identify and react to threats whether by land, sea, or air.
- Apply AI and ML to power entity classification and identification in real-time, increasing the accuracy of analysis and shortening time to decision by automatically flagging abnormal patterns and behaviors for further review.
- Provide analysts with new levels of insight into the area of operations and the ability to interact with data in real-time, enabling ad hoc analytics based on text, time, location and other criteria.



AI-ENHANCED CYBERSECURITY AT SCALE

- Interactively analyze and visualize large volumes of streaming and historical network and log data to uncover anomalies, suspicious behaviors, and notable trends.
- Apply geospatial analysis and machine learning for added detail to find needle in-the-haystack cyber threats, highlighting anomalies for human analysts to respond to.



DYNAMIC LOGISTICS

- Analyze streaming, historical, and geospatial data from warehouses, depots, vehicles and IoT devices at scale to optimize supply chains and power real-time inventory replenishment to ensure critical resources are always in stock.
- Dynamically optimize routes to ensure on-time delivery and gain real-time visibility into in-progress deliveries. Apply graph analytics for shortest point analysis to maximize efficiency.

DATA-DRIVEN EMERGENCY RESPONSE AND DISASTER MANAGEMENT

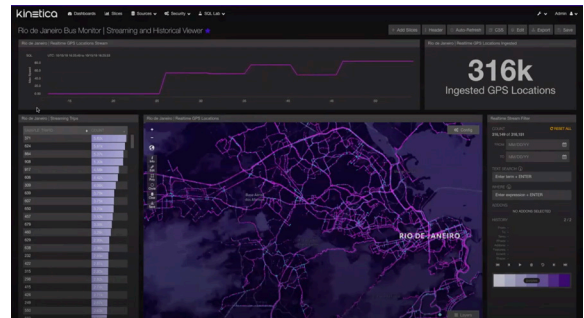
- Model and visualize complex disaster risks to communities and critical infrastructure in real-time, enabling superior risk mitigation, planning and response decisions.
- Combine streaming, historical, and geospatial analytical capabilities at scale to prepare for activities ranging from evacuations, supply logistics, and utility outages.
- Aggregate and track data relevant to emergency response in real-time. Combine current data such as hospital capacity and diversion status, locations of alternative medical sites, state-wide declarations, testing kit quantities, and protective equipment availability at a local level to power data-driven decision making.

DIGITAL GOVERNMENT

- **Fraud Detection**
- Apply trained models and AI to identify anomalous behavior and systemic patterns of tax evasion, healthcare fraud, and other kinds of waste and abuse in the public sector.
- Analyze historical data at scale and draw connections between various entities using graph analysis to identify fraudulent behavior and bad actors.
- Combine datasets from public and private sources as well as across different departments like tax, customs, and business registrations to improve tax and payments compliance and government efficiency.

- **Smart City**

- Analyze real-time data from thousands of connected devices in buildings, public spaces, and on public transportation in order to make city operations safer and more efficient.
- Unify IoT data analysis on a single, high performance platform to drive improved city planning and development of new, data-driven public services.



DATA-POWERED SUSTAINABILITY INITIATIVES

- Leverage data and analytics to tackle complex environmental challenges. Perform real-time anomaly detection to improve energy efficiency, apply machine learning models to identify pollution, and collect and integrate billions of data points into smart applications for analysis and action.
- Kinetica partners with the U.S. Department of State, the Wilson Center, the Earth Day Network, the San Francisco Estuary Institute, and the World Economic Forum on environmental initiatives.

