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Kinetica for Supply Chain and Logistics



From streaming vehicle positions to point of sale data and inventory levels, Kinetica can analyze complex, fast-moving data at scale from throughout the supply chain and logistics ecosystem to deliver real-time visibility and actionable insight to improve efficiency, maximize revenue, and enhance decision making. The world's largest organizations like the United States Postal Service rely on the Kinetica Streaming Data Warehouse to optimize delivery routes, enable real-time replenishment, and maximize operational efficiency.

SUPPLY CHAIN VISIBILITY AND DEMAND FORECASTING

Predict fluctuations in demand and take instant action to maximize profit by optimizing scheduling and production and making event-driven fulfillment decisions. Gain control tower visibility into operations and pinpoint bottlenecks or anomalies to improve operations.

Dynamic Inventory Replenishment

- Stream inventory data and restock automatically, combining and analyzing current supply chain data to fill in the gaps before customers ever see any. Ingest and analyze streaming data sources such as connected fleet and point of sale data in real-time.
- Reduce costs, optimize inventory, avoid overstock, and improve overall operational efficiency to better serve both customers and employees.

REAL-TIME LOGISTICS ANALYSIS

Leverage real-time visibility into demand to coordinate supply chains and delivery options to solve complex logistical challenges. Dynamically optimize routes for speed, efficiency and delivery method, perform instantaneous exception management, and improve customer experience with informed delivery. Apply native graph analytics for shortest point analysis.

Intelligent Route Optimization

- Leverage geospatial analytics at scale to visualize your fleet in real-time and react to anomalies to improve delivery efficiency.
- Analyze fast-moving streaming data sources, from sensors to personnel, weather, traffic and more to enhance visibility and understanding of routes.
- Power analytics-driven route planning and optimization, to save time and improve customer satisfaction.

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END-TO-END OPTIMIZATION

Improve the efficiency of the entire organization with a real-time understanding of operations. Analyze supply chain and logistics data at scale to optimize processes, boost workforce utilization, accelerate regulatory reporting, enable predictive maintenance, and ensure SLAs are fully met. Perform detailed scenario planning, stress testing, and supply chain risk analysis.

Data-Driven Fleet Management

- Enable interactive visualization and analysis of automated trip logs, gaining insight into driver safety and efficiency.
- Perform predictive maintenance analytics to guarantee fine-tuned and streamlined operations.
- And as autonomous vehicles continue their development, apply Kinetica to analyze large scale AV testing data to understand disengagements and anomalies for regulatory reporting and algorithm enhancement.

