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Real-Time Data and Analytics for Financial Services

Telematics-based insurance firms use Kinetica for real-time analytics with AI

In a highly competitive market, insurers need to offer a differentiated product to attract and retain customers, improve risk rating, price accuracy, claims processing, and reduce fraud. Telematics-based insurance offers a better solution but requires new capabilities to manage large, complex, streaming data and deliver real-time analytics with artificial intelligence. Only Kinetica delivers streaming analytics, geospatial analytics, IoT, and deep learning to power your business in motion. Automatically uncover patterns and anomalies. Get real-time insights into driver behavior for accurate pricing and risk management.

Insurers use Kinetica for emerging risk discovery and new insurance product development

Insurers are struggling to store, manage, and analyze their continuously-moving structured and unstructured data. They want to identify emerging risk patterns and design better products and services to drive customer acquisition, retention, improve claim processing, and reduce costs. Kinetica delivers new cognitive capabilities with scale and automation to integrate data from social media, news outlets, call notes, claim documents, weather, and adjuster notes. Discover patterns and anomalies to better market, acquire, and retain customers. Use deep learning to predict natural calamities and adverse events such as thefts. Proactively offer personal property insurance and customer notifications.

In an industry where milliseconds matter and where insight directly equates to money, machine learning, deep learning, and faster analytics offer a distinct competitive advantage. Kinetica makes it possible for financial services organizations to derive insights from vast volumes of complex and streaming data in milliseconds. Use Kinetica's instant insight engine for artificial intelligence and truly real-time analytics demands including customer experience, fraud analysis, risk management, and algorithmic trading.

DEMOCRATIZING DATA SCIENCE FOR FINANCIAL INSTITUTIONS

With Kinetica's user-defined function (UDF) capabilities, data exploration, model development/scoring, and model consumption can all be performed on a single compute-heavy platform, meaning that you can now perform complex queries on demand without needing to move data between systems. This solves the data movement challenge and enables a more simplistic architecture for Machine Learning, Deep Learning, and OLAP workloads. With Kinetica, you can now manage customer experience and risk interactively—so you can make data-driven decisions faster and drive increased profits for your organization.

Kinetica has numerous use cases that can be applied to operational excellence, customer experience, risk, and markets:

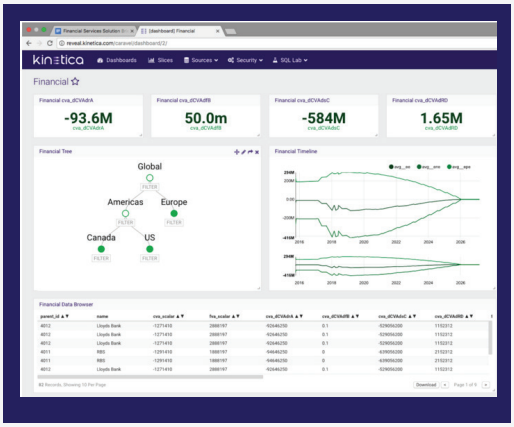
Fraud and Cyber Threat Detection

Performing real-time analysis on the volumes and disparate types of transaction, trade, and machine data necessary for fraud detection and cyber security is a challenge for even the most advanced data systems. Kinetica is uniquely able to enable those who model fraud and cyber security to perform queries on large streaming datasets in order to uncover relationships, anomalies and patterns that signal potential fraud or suspicious activities. Kinetica can be used to combine data feeds with anomaly detection, monitor multiple streams of global attack vectors, find security lapses, and mine system logs to proactively manage fraud and cyber security.

KINETICA INSIGHT ENGINE

Large European Bank to move counterparty risk analytics from overnight to real time

With the increased regulatory environment, banks struggle with determining the trading book fair value. As valuation adjustments need to project years into the future and organizations need real-time insights, risk computations are becoming more complex and computationally heavy. A large European bank needed help with real-time counter-party risk analytics to accurately measure the fair value of its trading book and manage risk. The bank turned to Kinetica's GPU-accelerated database to run custom risk algorithms in-database at scale to compute risk metrics for each trade in real time. Kinetica enables the bank to move from batch/overnight analysis to a streaming/real-time system for risk management by traders, auditors and management.



Real-time counterparty risk analytics with Kinetica

Regulatory Compliance

Financial institutions often take a fragmented approach to dealing with regulatory compliance. Ad-hoc query demands of regulatory compliance are frequently slow and cumbersome on the large datasets involved. With Kinetica, you can meet growing global compliance demands, while leveraging its horizontally scalable architecture for reporting on a massive scale, resulting in dramatically reduced compliance and regulatory costs.

Real-time, Omni-channel Customer Experience

Analyzing real-time customer activity across and within channels—such as online, mobile, branches, call center, and social media—and combining it with data at rest—such as customer profiles, preferences, prior purchases, and creditworthiness—to discover upsell opportunities are some of the workloads that are becoming too complex and too slow for traditional data systems. Kinetica's ability to ingest and query data at scale and in real time offers financial institutions a myriad of ways to improve customer experience, cut costs, and improve profitability. Retail banks, traditional asset managers, credit card issuers, and traditional lending institutions can use Kinetica to spot customer behavioral patterns, improve customer experience, and discover upsell opportunities.

Risk Management

Real-time and intra-day risk management is a major problem facing the financial industry today, and it's pushing conventional computing to its limits. Kinetica can rapidly visualize and simulate multiple scenarios and reveal risk exposures, so that suspicious activity can be detected in seconds, not hours. Perform risk calculations on demand using the most up-to-the-moment data with sub-second speed, so you can make better informed investment decisions and react quickly to market events, while reducing credit risk.

Counterparty Risk Analytics

Banks can improve their ability to make prudent business decisions by employing counterparty credit risk (CCR) capabilities. Kinetica can be used to run more complex market or counterparty risk calculations and obtain results intra-day rather than overnight. The speed and quality of information gives you deeper insight into your exposures, enabling you to rapidly adjust positions and reduce risk. Kinetica provides the speed, performance, reliability, and scalability needed to calculate counterparty risk with no downtime. It can also support real-time alerting if a risk threshold is surpassed. Integration with easy-to-use, point-and-click BI and visualization tools delivers rich insights to traders, business analysts, and executives for faster decision making.

Algorithmic Trading

Algorithmic trading uses vast historical data with complex mathematical models to maximize portfolio returns. You need to be able to access this data as well as run analytics against massive, live, streaming data. With Kinetica, you can manage a huge amount of tick data by loading all of the data from all of your sources into memory and leveraging the power of GPUs to enable a more real-time user experience.

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For more information on Kinetica and its insight engine, visit kinetica.com