

TRANSFORMING TELECOMMUNICATIONS WITH TRULY REAL-TIME ANALYTICS

Streaming Analytics Database, Ideal for Telecommunications

10x-100x query on 1/10 the hardware, compared to even the most advanced in-memory analytics databases.

Lightning Fast Query

In tests, Kinetica returns results for advanced analytical queries on billions of rows of data in well under a second.

Ideal for Streaming Data

Parallel ingest and reduced reliance on indexes means data on Kinetica is available for query the moment it arrives.

Accelerate BI

Business users can easily write queries with SQL, integrate Kinetica with popular BI software such as Tableau, or use custom apps leveraging the native RESTful API.

Geospatial Visualization

Visualize patterns on geospatial and temporal data. Kinetica harnesses the GPU for query and drawing geospatial display of vast volumes of data.

In a highly competitive industry built on the movement of data, fast insights on that data is essential for many business functions. Kinetica's GPU-accelerated database makes it possible for telcos to derive insights from vast volumes of complex and streaming data in milliseconds. Use Kinetica for lightning-fast, location-based data analytics including network optimization, monitoring usage, call detail records analysis, reducing customer churn, fraud detection, and subscriber monetization.

Key Use Cases in Telecommunications

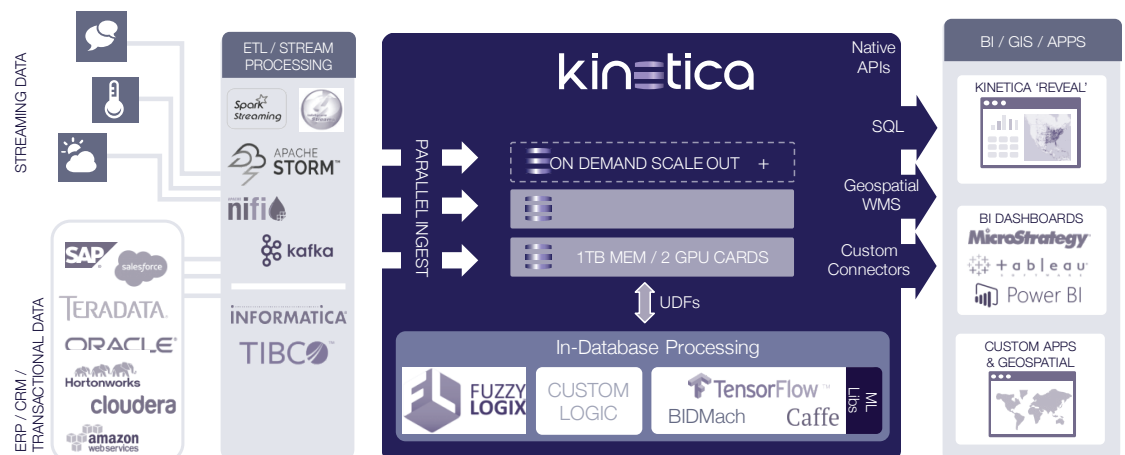
Network and Infrastructure Optimization

Track and visualize the real-time usage and status of telecommunications networks/towers in order to gauge performance levels and identify any bandwidth or maintenance issues. Kinetica's flexibility to do rapidly perform predictive analytics enables telcos to identify equipment before it fails for lower service disruptions and lower maintenance costs. Cell phones can be "polled" on demand to determine the health of the cell phone network. Kinetica's GPU cores can crunch this kind of data far more efficiently and quickly than CPUs, so results can come back in milliseconds instead of hours.

Monitor Usage and Capacity

Telcos can also use Kinetica to collect and visualize real-time data in order to identify the periods of heaviest network usage, forecast network capacity, and plan for potential network outages or short-term surges. Although a traditional RDBMS can perform these types of tasks, Kinetica's difference is that it can process data in near real time. Kinetica is particularly well suited to location-based analytics—visualize billions of data points and display changes in real time as the underlying data changes at many orders of magnitude faster than a traditional RDBMS. By integrating a multitude of complex data sets and quickly visualizing this data, Kinetica can provide telcos with a real-time, dynamic view of their operations.

Kinetica Architecture



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Network Usage and Call Detail Records Analysis

Kinetica's vectorized columnar data store is ideal for large volumes of streaming high-cardinality data, such as call-data records. GPU acceleration ensures low latency between ingest and time to query, allowing for sophisticated analytics on live data. Use Kinetica to quickly identify network problems, better understand usage patterns, and more.

Telco Solutions for Smart Cities, Cars, and Homes

There is a staggering amount of IoT data that "smart cities" will need to process, and making sense of that data is at the heart of any successful smart city. As telecommunications companies support an ever increasing network of communicating devices, Kinetica is ideal for capturing that data and enabling fast insights to be made available as services to cities.

Customer Churn Reduction

There are two main limitations that can have a negative impact on telecom revenue: 1) Lack of timely insights, and 2) Delayed response time to customers. Use Kinetica to combine social media feeds, call detail records, network performance data, and call center interactions to identify declining usage and pinpoint the customers who are the most likely to defect, so that they can then address customer satisfaction issues and take appropriate steps to prevent customer churn.

Fraud Detection and Prevention

Telcos can use Kinetica to collect and analyze real-time data in order to detect anomalous behavior. Baseline normal behavior can be modeled through the analysis of customer account data, location-specific data and usage data. Kinetica can then enable the development of predictive models that can flag and proactively prevent fraudulent activities.

Subscriber Data Monetization

Telcos are exploring packaging, and selling anonymized subscriber data to other vertical markets such as advertising, retail, financial services, public services, and healthcare. Cell phone device location data can be combined with other subscriber data to provide information on what stores a subscriber visits, at what time of day, and where the subscriber lives. For example, Kinetica can be used to provide real-time heatmaps data that show who is visiting a retailer's store and where they live. Data from a shopper's visit to a particular store can be combined with web browsing data, which can help retailers provide customers with targeted ads, or help them determine where to open new retail locations.

For more information on Kinetica and GPU-accelerated databases, visit kinetica.com