

The Kinetica Advantage

Unmatched Performance

- Ingest streaming data—billions of records per minute—and get “up to the moment” analytics
- Realize 100x performance improvement on queries compared to CPU-based in-memory solutions
- Holds 100s of TB of data in-memory for extremely low-latency analytics

Advanced Analytics with In-Database Processing

- User-defined functions (UDFs) enable compute as well as data-processing, within the database
- Machine learning/AI libraries such as TensorFlow, BIDMach, Caffe, and Torch can run in-database alongside, and converged with, BI workloads.

Simplicity

- No typical tuning or indexing required; ask and answer any question in real time
- Connect with common BI tools like Tableau, Kibana and Caravel
- A converged, unified suite; not multiple disparate components

Predictably Scalable

- Easily scale up or out
- Data written to Kinetica is automatically routed to parallel connections across the cluster
- OLAP queries are executed using fully distributed GPU-accelerated processing across the cluster

Easy APIs and Integration

- Open source integration components include Apache NiFi, Spark and Spark Streaming, Storm, Kafka and Hadoop
- Kinetica's APIs are fully supported in REST, Java, Python, C++, Javascript and Node.js
- ODBC and JDBC drivers integrate with industry-standard BI and SQL tools

Supercharge Your Tableau with the Industry's Fastest GPU Database

Kinetica is a GPU-accelerated, in-memory analytics database that delivers truly real-time response to queries on large, complex, and streaming data sets. Leading enterprises use Tableau with Kinetica to simultaneously ingest, explore, analyze, and visualize data within milliseconds to make critical decisions and find efficiencies, lower cost, generate new revenue, and improve customer experience.

Industry-Leading Price-Performance

Supercharge your Tableau workbooks with lightning-fast performance from Kinetica. Kinetica consistently outperforms leading in-memory and NoSQL databases with ingest speed of billions of records per minute and millisecond response time on complex OLAP queries on hundreds of billions of records. Tableau and Kinetica together make data analytics easy, simple, and instantaneous so you can query massive datasets in seconds—turning your business into a real-time enterprise.

GPU-Acceleration Overcomes Processing Bottlenecks

GPUs are designed around thousands of small, efficient cores that are ideal for performing repeated similar instructions in parallel. This makes them well-suited for compute-intensive analytics workloads on large data sets. Kinetica's native GPU-based parallel processing removes the need for expensive, difficult, and resource-intensive database tuning, indexing, aggregation, and data marts and delivers 100X query performance improvements on commodity hardware. That's supercharging the Tableau workbooks with the industry's best price/performance ratio.

Industry-standard Hardware

Kinetica runs on industry-standard hardware from IBM, Cisco, Dell, and HPE and leverages high performance GPUs from NVIDIA, which feature over 4,000 cores per card, versus 16 to 32 cores per typical CPU-based device.

Columnar, Relational, In-Memory Database for Fast Analytics and Easy Adoption

Kinetica's database runs completely in-memory to optimize throughput and deliver fast query performance. A tiered memory management approach ensures that hot, warm, and cold data

can be distributed across GPU VRAM and system memory to balance capacity and performance.

A column-oriented database design ensures that the data structures are optimized for in-memory management and fast analytics. A relational database model with familiar concepts such as tables, columns, and SQL support ensures that Kinetica is easy to deploy, use, and manage.

Distributed, Scale-out Architecture

A Kinetica cluster contains data sharded across multiple nodes to leverage parallelization for ingest, analytics, and visualization. Additional nodes can be added for scale-out to improve query performance and system capacity. Kinetica can power real-time Tableau queries, reports, and dashboards by simultaneously ingesting data into the same tables that are being queried by Tableau.

Do More With Your Data

Tableau combined with Kinetica helps you do more with your data.

Speed Layer for Instantaneous Insights

Kinetica features multi-head, multi-thread, parallel ingest to capture and provision millions of rows of data in seconds. Minimize data preparation, tuning, and aggregate data on the fly to ingest, provision, analyze, and visualize millions of rows of data in Tableau within seconds.

Free-form Exploration and Discovery

Kinetica leverages the massive parallelization and brute-force compute of GPUs to minimize aggregate tables, pre-computed calculated columns, and cubes simplifying the analytics pipeline. With Kinetica, Tableau business analysts are free to interactively explore billions of rows of data without limitations and discover hard to find insights.

Point-and-click Access to Python-based User Defined Functions

Tableau's TabPy feature combined with Kinetica's UDF framework democratizes data science by making machine learning, deep learning, and custom functions deployed in Kinetica available to non-technical business users through Tableau dashboards.

Location-Based Analytics With Kinetica and Tableau, business analysts can make faster decisions by visualizing and interacting with billions of data elements instantly.

Streaming Analytics Kinetica's in-memory database is designed to take advantage of the parallel processing nature of the GPU for streaming analytics on large, complex real-time data from sensors, connected devices, social media, and mobile apps. Kinetica features connectors for Apache Kafka, Apache Nifi, Apache Storm, and Apache Spark and ingests large, complex data in parallel making streaming data available for query and analytics in real-time.

Preserve Existing IT Investments

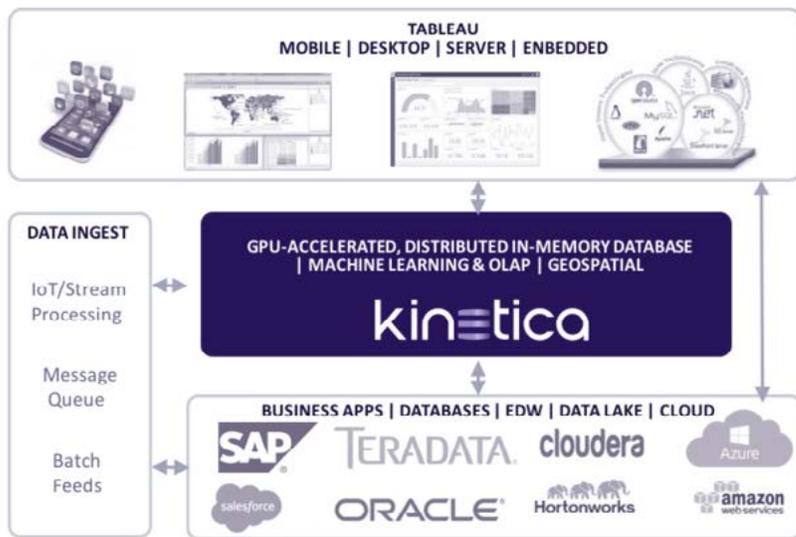
Kinetica's enterprise-grade database is designed for interoperability and plugs seamlessly into your existing infrastructure for faster time to value.

Seamless Tableau Integration Tableau's Replace Data Source feature ensures that you can take advantage of Kinetica's speed and advanced analytics without much changes to your existing Tableau workbooks. Simply point your Tableau workbooks to Kinetica and leverage Kinetica's ODBC and JDBC connectivity along with SQL-92 support to accelerate your Tableau workbooks.

Standards-based for Fast and Easy Adoption

Kinetica is designed for seamless integration "BI and ETL tools, and business applications. Kinetica supports industry standards such as REST APIs, ODBC/JDBC, SQL, and connectors for certified integration. Support for commodity hardware from IBM, Dell, HP, Cisco, and NVIDIA and cloud providers such as Amazon Web Services, Microsoft Azure, Nimbox, and Google Cloud Platform ensures that Kinetica can be quickly deployed on premise, in a public cloud, private cloud and hybrid.

Enterprise-grade Solution Kinetica is designed for enterprise-grade security, reliability, availability, and scalability. Authentication and authorization features such as LDAP, user/group/role based access control ensure that data is always secure. Kinetica supports high availability with inter-cluster active-active configuration and data replication. A distributed, scale-out architecture with tiered memory management across VRAM, system memory, and disk ensures scalability.



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

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