KINETICA

POWER BUSINESS IN MOTION

Overview

When extreme data requires companies to act with unprecedented agility, Kinetica powers business in motion. Kinetica is the instant insight engine for the Extreme Data Economy. Across healthcare, energy, telecommunications, retail, and financial services, businesses tapping into new technologies like connected devices, wearables, mobility, robotics, and more can use Kinetica for machine learning and advanced location-based analytics that power new services. Kinetica's accelerated parallel computing brings the force of thousands of GPU cores to bear on the unpredictability and complexity of extreme data.

Customer Success

UNITED STATES POSTAL SERVICE ®

The US Postal Service relies on Kinetica to ingest, analyze, and visualize large and complex streaming data for real-time route optimization and on-time mail delivery.

RS ENERGY GROUP

RS Energy Group uses Kinetica to process real-time pipeline, well, and spatial data to pinpoint the most viable oil fields and remotely monitor drilling performance.

LIPPO GROUP

Lippo Group, with businesses across retail, telco, finance, and healthcare, uses Kinetica to manage these myriad data sources with millisecond latency, gaining a 360-degree view of their customers across industries, and delivering real-time personalization.

Our Story

After extensive testing and research revealed no existing systems capable of meeting the US Army Intelligence and Security Command's needs for tracking national security threats in real time, Kinetica was built from the ground-up, centered around massive parallelization utilizing the GPU, to produce instant results and visualize insights across massive streaming datasets.

Now the proliferation of mobile, cloud, and IoT devices has brought us into a new era: The Extreme Data Economy. There's a greater variety of data than ever before, and exponentially more of it, streaming in in real-time. Never before has data been so complex and unpredictable, and businesses are running up against serial computational bottlenecks at the very moment the data is most valuable.

Kinetica's instant insight engine is powered by thousands of advanced GPU cores that bring unparalleled speed, streaming data analysis, visual foresight, streamlined machine learning, and a best-in-class partner innovation ecosystem to break through the old bottlenecks.

Kinetica is already battle-tested, and has a strong partnership with NVIDIA for accelerated hardware. We're certified on Dell, IBM, HP, SuperMicro, and Cisco servers.

KINETICA INSIGHT ENGINE FOR THE EXTREME DATA ECONOMY

The Kinetica Advantage

Kinetica is built on five pillars of success.

Unparalleled Speed

Dramatically accelerate analysis with advanced parallel computing

- In-memory GPU architecture with advanced GPU abstraction technology
- SQL queries to process and analyze billions of rows in microseconds
- Simpler data preparation through distributed ingestion and extraction without the need to index

Streaming Data Analysis

Ingest and process data at the same time to get instant results

- Run SQL queries on streaming and geospatial data
- Continuously collect, analyze, and integrate streaming data with historical data
- All-in-one solution to ingest, compute, visualize, and egress data

Visual Foresight

Instantly translate temporal, geospatial, and streaming data into visuals that reveal patterns and opportunities

- In-memory, distributed image processing and rendering
- Interactive visual discovery optimized for temporal & geospatial analysis
- Integrated visual dashboard

Streamlined Machine Learning

Train models faster and predict more accurately with integrated machine learning workflows

- Seamlessly integrate pre-existing code with highly scalable solution
- Simultaneously process & manage BI and AI workloads
- Integrate workflows with open source machine learning libraries

Best-in-Class Innovation Ecosystem

Kinetica partners with leaders in every category to deliver continuous cutting-edge innovation

- Innovations with leaders in GPUs, hardware, cloud, machine learning, and visualization
- Integration with most data infrastructures
- Deploy on industry-standard hardware and scale linearly

The Power of GPUs

Kinetica relies on GPU acceleration, which obliterates the processing bottlenecks businesses run up against with traditional, serial computing. GPUs are designed around thousands of small, efficient cores that perform repeated, similar instructions in parallel. They're equipped to handle large, complex data sets with compute-intensive workloads--data sets that result from AI, machine learning, deep learning, NLP, OLAP, and other groundbreaking technologies.

- Our high-performance GPUs from NVIDIA feature over 6,000 cores, versus up to 64 cores per typical CPU-based device
- Parallel processing is ideal for scanning an entire data set & using brute force compute
- GPU acceleration transforms established, commodity hardware into high-performance compute power

Additional Benefits

Simplicity: No typical tuning or indexing required; ask and answer any question in real time.

Scalability: Easily scale up or out. Data written to Kinetica is automatically distributed across the cluster for scalable data management. Distributed parallel processing across the cluster improve performance for compute-intensive analytics and machine learning workloads.

Security: Kinetica features LDAP authentication with support for Active Directory, authorization with role-based access control, full encryption for data in movement and at rest with SSL, PLS, AES-256, and more.

Savings: Smaller hardware footprint with 1/10 the hardware costs on average, and 1/20 the power and cooling. Offload expensive relational databases to Kinetica and consolidate to a single data product with seamless integration to Hadoop for long-term storage.

Supports High Availability: Inter-cluster active-active configuration and data replication for five 9s uptime.

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