

The Kinetica Advantage

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

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

Complete Native Visualization and Geospatial Capabilities

- Real-time geoprocessing
- A fully GPU-accelerated distributed rendering pipeline
- Visualize billions of points in seconds

With HPE and Kinetica, perform real-time analysis of massive data sets, particularly for use cases where time and location matter.

If you want to remain competitive, you need to be able to deliver fast, secure, and cost-effective services to your customers. The HPE and Kinetica solution is ideal for mission-critical enterprise and business intelligence applications, providing instant results and visualized insights across massive streaming datasets.

Kinetica is certified to run on HPE ProLiant DL and Apollo servers, giving you the ability to interact with and visualize billions of data elements in real time. This transformative capability is well suited for use cases such as optimizing supply chains and monitoring vehicle and product movement. As an example, Kinetica partnered with HPE to help the USPS channel the power of massively distributed GPUs to track the location of employees and individual pieces of mail in real time. Today, USPS runs Kinetica in a load-balanced, distributed, multi-rack environment spanning numerous datacenters, running on HP Enterprise servers with NVIDIA GPUs. The platform supports 15,000 concurrent users and ingests data from more than 200,000 scan devices.

Recommended Hardware

HPE Apollo 6500 Chassis

The Apollo 6000 System provides a performance-optimized, air-cooled solution that works with standard space requirements. This rack-level solution provides simplified administration efficiencies and flexibility to match the solutions to the workload and to lower total cost of ownership. The HPE Apollo 6000 fits more cores into a smaller form factor, giving you 20 percent more processing power while taking up 60 percent less space than a computing blade. Gain efficiency, density, and throughput for HPC—while using 46 percent less energy.

HPE ProLiant DL380 Generation9 (Gen9)

The HPE ProLiant DL380 Gen9 Server delivers the best performance and expandability in the Hewlett Packard Enterprise 2P rack portfolio. Reliability, serviceability and near continuous availability, backed by a comprehensive warranty, make it ideal for any environment.

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The NVIDIA GPU Advantage

NVIDIA GPUs enable Kinetica to perform brute-force queries on large datasets by leveraging the parallel processing nature of GPUs with their thousands of cores per device, versus 18 to 32 cores on a typical CPU. The outcome is remarkable performance increases, and tangible savings on hardware. On internal benchmarks, NVIDIA GPUs help Kinetica to deliver 100x faster analytic performance than other CPU-based in-memory databases.

	GOLD CONFIGURATION HPE Apollo 6500	SILVER CONFIGURATION HPE ProLiant DL380
Storage	Kinetica storage: 4 - 1TB SSDs with raid 10 OS, binaries, log storage: 4 - SAS drives with raid 10, each with 1TB of storage	
RAM	1.5TB DDR4 up to 2400MT/s	512GB DDR4 up to 2400MT/s
CPUs	2-Intel® Xeon® Processor E5-2697v4 (36 Cores)	2 - Intel® Xeon® Processor E5-2690v3 (24 Cores)
CPU/GPU Link	PCI Express	
GPUs	2 NVIDIA V100 or P100s	NVIDIA V100 or P100 s



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

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