



### 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

## Kinetica runs on Cisco UCS servers to provide a true real-time analytics and visualization solution that allows you to uncover new insights immediately.

Cisco UCS is a next-generation data center platform that unites computing, networking, and storage access, and is designed for IT innovation and business acceleration. The product portfolio includes blade and rack servers, edge scale computing, converged infrastructure, composable infrastructure, and hyper-converged infrastructure solutions.

The Cisco and Kinetica solution is ideal for those in retail, logistics, ad tech, financial services, supply chain management, as well as any business that is interested in BI and high performance analytics.

Cisco UCS servers:

- Simplify your data center architecture
- Reduce the number of devices to purchase, deploy, and maintain
- Improve speed and agility

Kinetica is certified to run on the UCS C240 M4 and C460 M4 Rack Servers.

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### Cisco UCS NVIDIA Portfolio

With the addition of NVIDIA GRID and Tesla graphics processing capabilities, the engineering, design, imaging, and marketing departments of organizations can now experience the benefits that desktop virtualization brings to these applications. When combined with Kinetica, users can explore massive data sets and uncover insights faster than ever before without having to learn new languages or construct data models.

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### Recommended Hardware

#### Rack Servers

##### The Cisco UCS C240 M4 Rack Server

The Cisco UCS C240 M4 Rack Server is an enterprise-class server designed to deliver exceptional performance, expandability, and efficiency for storage and I/O-intensive infrastructure workloads. This includes big data analytics, virtualization, and graphics-rich and bare-metal applications.

##### The Cisco UCS C460 M4 Rack Server

The Cisco UCS C460 M4 Rack Server offers exceptionally high performance and reliability to power the most compute- and memory-intensive, mission-critical enterprise applications and virtualized workloads.

## 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.

UCS 240M4 or 460M4	
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	RAM - 1TB DDR4 up to 2400MT/s
CPUs	2-Intel® Xeon® Processor E5-2680v2 (24 Cores)
CPU/GPU Link	PCI Express
GPUs	2 NVIDIA V100 or P100s



For more information on Kinetica and GPU-accelerated databases, visit [kinetica.com](http://kinetica.com)

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