



NVIDIA AND FASTDATA.IO DATA PROCESSING AT THE SPEED OF THOUGHT

Companies are ingesting incredible amounts of data every second of every day. Enterprises need to economically process this ever-growing influx so they can make fast, intelligent decisions based on the most current information, while discarding the rest. To do this—and to properly scale with today's demands—it's essential to move beyond CPU-bound software to a solution for efficient, real-time data stream processing.

INTEGRATED SOLUTION

By exploiting the massive parallel-processing power of NVIDIA GPUs, FASTDATA.io has created the fastest stream-processing engine in the world today.

Plasma Engine is the first GPU-native software to fully leverage NVIDIA GPUs and Apache Arrow for real-time processing of infinite data in motion. By porting Apache Spark to Plasma Engine, businesses are empowered to process their existing Spark workloads faster than ever on GPUs without the hassle of changing their code.

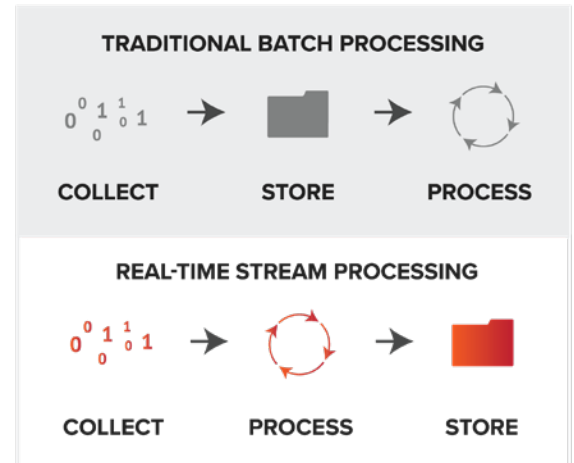
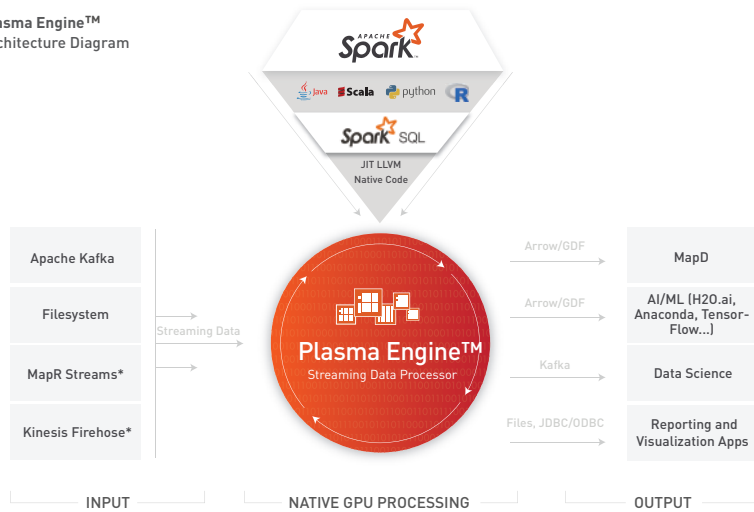
The opportunities to utilize Plasma Engine are almost infinite. Whether it's speed, efficiency, cost savings, or all of the above, by harnessing the processing power of GPUs, Plasma Engine empowers an organization to leverage its data in motion in countless ways.

INDUSTRY CHALLENGES

1. Global data creation is doubling each year, yet 99 percent of data produced is never analyzed.
2. CPU-bound software can't keep up with exponential data growth, nor process huge, live data streams economically in real time.
3. Real-time stream processing is prohibitively expensive and complex to scale on CPUs, so most companies are forced to store their data before analyzing it with traditional batch processing.

Plasma Engine's biggest differentiator, by far, is speed. What could your business do if it could process data more than 100X faster? It starts with shifting away from the traditional batch method of "Collect → Store → Process" to the real-time streaming paradigm of "Collect → Process → Store"—or processing data at the "speed of thought."

Plasma Engine™ Architecture Diagram






Industry Insights

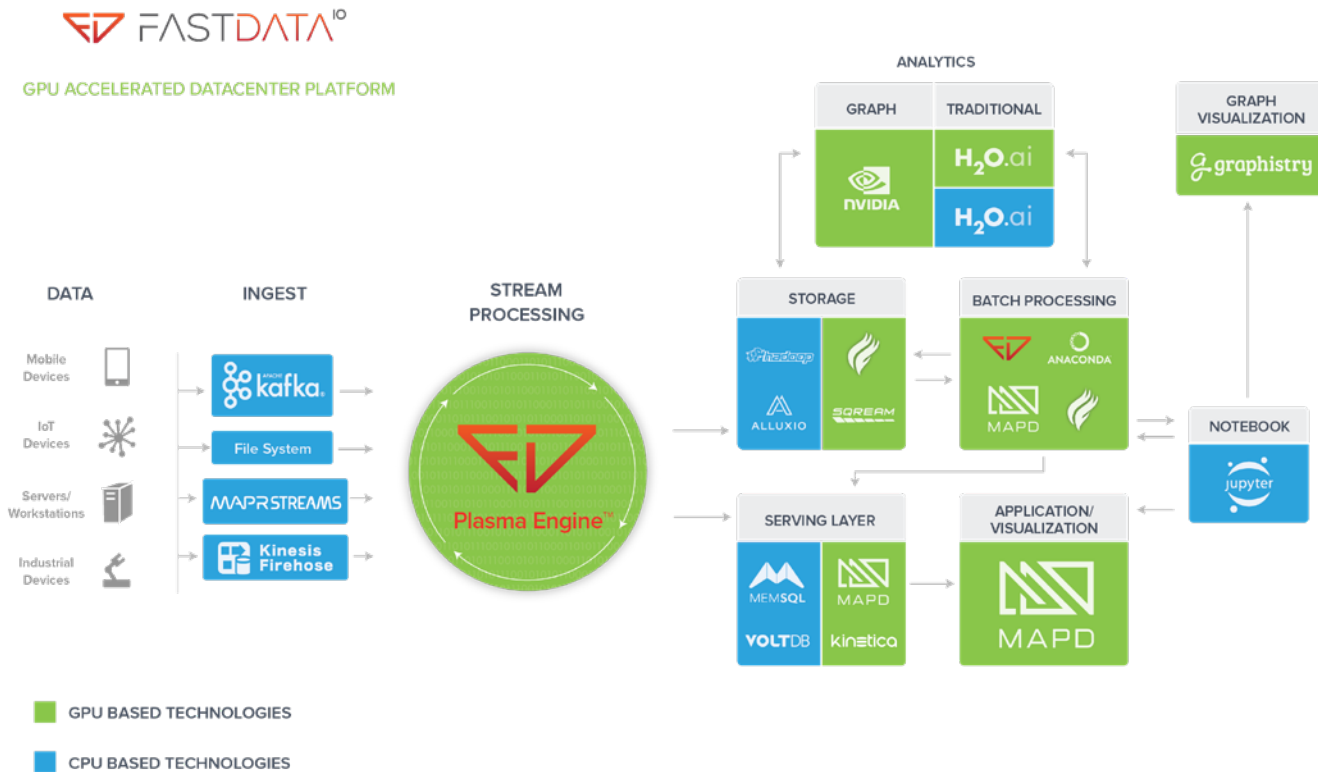
The possibilities are truly endless, but here are some examples.

Telecommunications	> Immediately correct and ease network congestion on a global scale.
Security	> Securely monitor cloud infrastructure across millions of IP addresses in real time.
Ad-Tech	> Instantly personalize for higher-impact advertising.
Media	> Gather content information more efficiently, allowing instantaneous content customization and a better audience experience.
Internet of Things (IoT)	> Implement subsecond monitoring and intelligence analysis from billions of IoT devices.
Financial Services	> Streamline back-office operations monitoring, business process analytics, market data intelligence, high-frequency trading, and payment and fraud processing.
Energy and Utilities	> Deliver large-scale sensor and logistics stream processing in real time, from smart-grid monitoring to well sensor data.

Together, NVIDIA and FASTDATA.io Deliver

UNPARALLELED SPEED	COST EFFECTIVENESS	ENERGY EFFICIENCY
 <p>Plasma Engine, powered by NVIDIA GPUs, can process data up to 1,000X faster than CPU-bound Java software.</p>	 <p>With NVIDIA GPUs, Plasma Engine can reduce your total cost of real-time stream processing by over 50 percent.</p>	 <p>Increased performance and efficiency results in a more than 95 percent reduction in power consumption and carbon emissions.</p>

FASTDATA.io Marketecture



Recommended Infrastructure

NVIDIA data center GPUs are available in servers, supercomputers, and cloud platforms around the world. You can now get end-to-end accelerated analytics solutions powered by NVIDIA GPUs with integrated software technologies and support from NVIDIA experts.

TESLA SERVERS IN EVERY SHAPE AND SIZE		DGX SYSTEMS THE ESSENTIAL AI TOOLS FOR INSTANT PRODUCTIVITY		CLOUD EVERYWHERE	
 					

Learn More

NVIDIA GPUs for accelerated analytics help customers effectively analyze, visualize, and unleash the power of AI to transform their digital business into an AI enterprise.

Website: www.nvidia.com/analytics

Twitter: [@NvidiaDC](https://twitter.com/NvidiaDC)

Blog: blogs.nvidia.com/

FASTDATA.io has created the world's first GPU-accelerated stream-processing engine.

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