POWERFUL Z WORKSTATIONS MEET FAST ANALYTICS PLATFORM
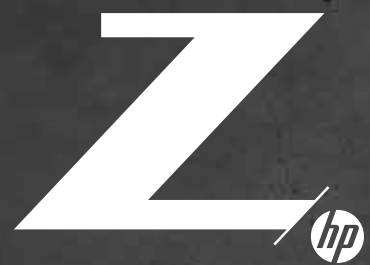
WHY Z + OMNISCI FOR DATA SCIENCE?

An explosion in IoT and big data has created opportunities for enterprises in all industries to create new value across their organizations. Enterprises that can derive more insights faster than their competition will gain a competitive edge.

Mainstream analytics tools designed in a past era lack the performance needed to keep up, providing a "click-and-wait" experience that could take hours or days. This delay can cause many challenges for businesses trying to gain advantage in the market.

As the pioneer in modern accelerated analytics, the OmniSci platform is used to find insights in data beyond the limits of mainstream analytics tools and leverage the parallel processing power of GPUs in Z workstations for data science workloads. Together, OmniSci on Z data science workstations, deliver a high-performance, enterprise-class solution that dramatically boosts productivity and speeds up time to insight for data scientists.

Z by HP with GPU processing allows for data scientists to maximize their workflow output and move from analyzing data in hours and cycles to milliseconds per click. And OmniSci accelerated analytics software optimized to run on Z data science workstations allows users to exercise unbounded curiosity when exploring data visually.

CHALLENGES WITH MAINSTREAM ANALYTICS TOOLS

- Data scientists are unable to explain AI models to business leaders because of the extreme difficulty of visually exploring billion-row or large spatiotemporal datasets.

- Data scientists ask only questions they know will be answered because machine learning model development, including feature engineering and ongoing monitoring, is overly time-consuming on large datasets. Issuing iterative queries is enormously time-consuming, hindering their ability to fully explore ideas.

- Data teams run out of time on a particular problem area, which forces them to downsample, introducing risk.

Unparalleled Speed at Scale Optimized for Data Science

Accelerate data analytics and data science: Query and visualize billions of rows of data in milliseconds for rapid time-to-business insights to gain a competitive edge.

Compared to mainstream CPU solutions, a Z by HP data science desktop workstation is 10x faster with huge performance gains allowing for between 2 billion and 5 billion database row output-depending on the configuration.

Immersive, Real-time Visualizations for Increased Productivity & Accuracy in Data Science Workflows

Increased responsiveness when doing data exploration. Freely interact with your data and create business insights more frequently.
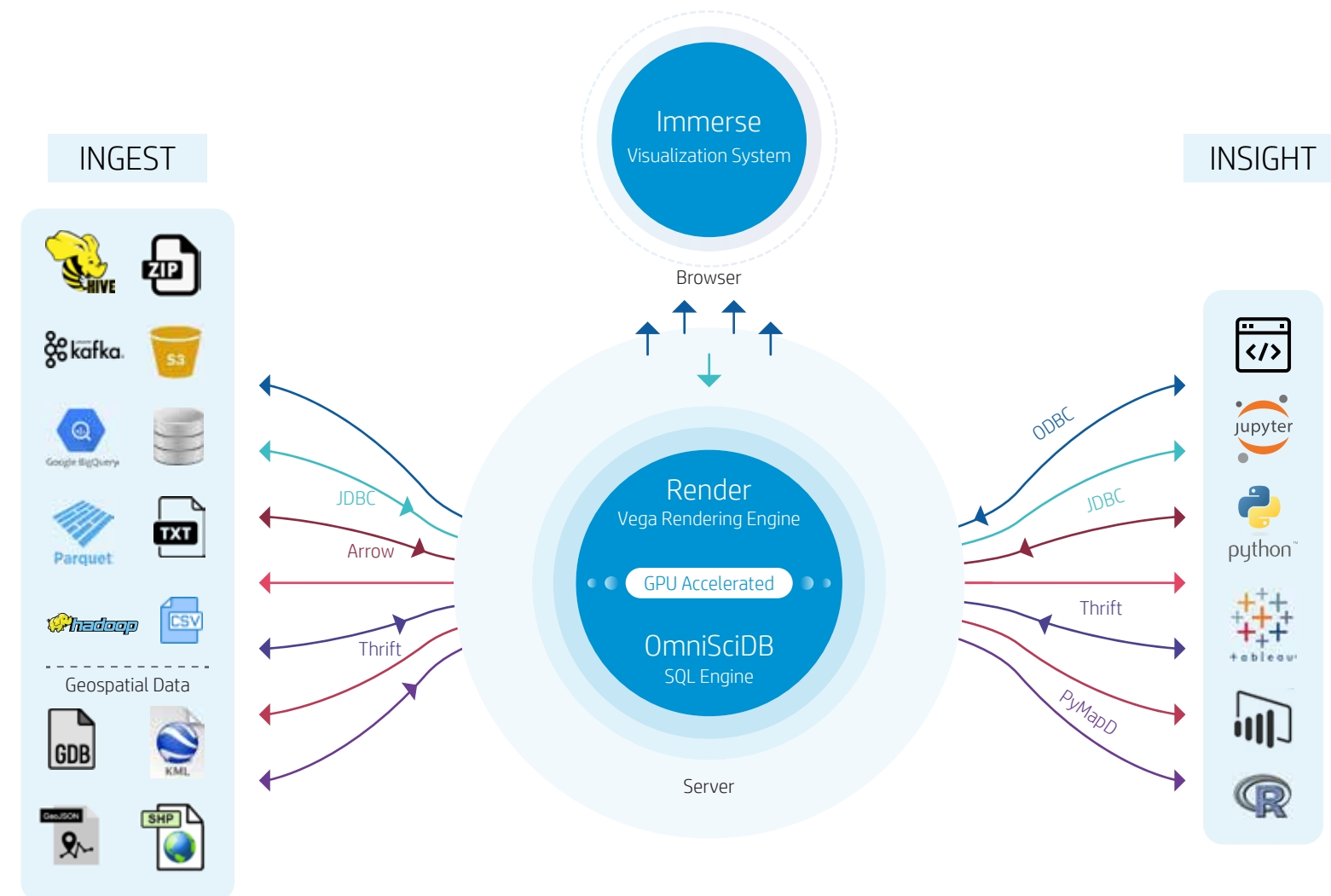
Combine Geospatial and Business Intelligence: Fuse large geospatial data to get real-time location intelligence. Plot and render millions of spatiotemporal points in milliseconds.

Lower Cost of Data Science Projects

Breakeven with a Z4 data science workstation configuration vs. cloud server implementation in as little as 8 months. Have confidence in your data science investment with a secure, expandable solution that is ready to go where your data takes you.

OmniSci is built for always-on, large production workloads that scale up & out as your data grows.

OMNISCI IN THE DATA ECOSYSTEM

INGEST

Immerse
Visualization System

Browser

INSIGHT

Render
Vega Rendering Engine

GPU Accelerated

OmniSciDB
SQL Engine

Server

Geospatial Data

JDBC

Arrow

Thrift

ODBC

JDBC

Thrift

PyMapD

INDUSTRIES THAT BENEFIT FROM Z + OMNISCI DATA SCIENCE PLATFORM

Telecommunications
Network Reliability Analysis
Location-enabled Services
Field Service Tracking

Investment Management
Investing with Alternative Data
Net Asset Valuation
Portfolio Performance Risk

Automotive, Transport & Logistics
Vehicle Telematics Analysis
Preventative Maintenance
Supply Chain Logistics
Fleet Telematics Analysis
Logistics Telematics Analysis

Energy / Utilities / Oil & Gas
Smart Meter Analysis
Grid Reliability Analysis
Preventative Maintenance
Oil & Gas Well Log Analysis

Public Sector / Federal
Geospatial Intelligence (GEOINT)
Pattern of Life Analysis
Battlespace Info Dominance

Others
Retail / Media Analytics
Pharma Clinical Trial Analysis
Cyber Incident Investigation

Z DATA SCIENCE WORKSTATION RECOMMENDED CONFIGURATIONS

HP Z4

Analyze 2-3 billion rows in milliseconds per click

- NVIDIA® Quadro® RTX 8000 GPU (48 GB)
- INTEL® XEON® 6C CPU
- 128-256 GM RAM
- 1 TB HP Z Turbo Drive
- 2TB HP Z Turbo Data Drive (optional)
- Ubuntu 18.04 or RHEL 7.5
- 1000 Watt Power Supply

HP Z8

Analyze 4 to 5 billion rows in milliseconds per click

- Dual NVIDIA Quadro® RTX 8000 GPU + NVLink (96 GB)
- Dual Intel® Xeon® 8C CPU
- 192-512 GB RAM
- 1 TB HP Z Turbo Drive
- 2 TB HP Z Turbo Data Drive (optional)
- Ubuntu 18.04 or RHEL 7.5
- 1450 Watt Power Supply