



GridGain and Azul Systems Deliver Real-time Data Analytics and Processing

Unique business intelligence data solution combines in-memory data and compute grid technologies to process more data, faster

The Industry's First Big Data Real-Time Data Processing Platform

GridGain redefines Big Data analytics and distributed processing. By combining in-memory data and compute grid technologies, GridGain delivers the industry's first Business Intelligence (BI) data platforms that can process a terabyte of data on 1,000s of nodes in milliseconds.

Building real-time analytics applications for large datasets requires in-memory data processing and storage. But unlike Apache Hadoop™ which is highly distributed and batch-oriented, GridGain has successfully combined both storage and processing in one product that can provide real-time business analytics for massive amounts of data across highly distributed environments. However, traditional Java Virtual Machines (JVMs) limit the amount of data the application can hold in-memory without impacting performance.

The solution is Azul Zing®, a Java SE compliant JVM based on Oracle's HotSpot. Unlike other Java runtimes, Zing decouples application performance from the amount of data kept in-memory in the Java heap. This allows applications running on Zing to utilize 100s of GB of data on the heap without performance penalties.

Zing is unique in its ability to provide high performance and low latency for memory-intensive applications. Key Zing innovations include its ability to grow and shrink the memory heap elastically based on real-time application demands and the Azul C4 garbage collection algorithm that limits Java-related pauses to under 30 milliseconds.

Running GridGain's in-memory data platform on Zing allows enterprises to process more data in less time. Plus, with Zing GridGain can scale to 100s of GB per server and still deliver guaranteed performance.



BENEFITS OF DEPLOYING THE GRIDGAIN PLATFORM ON AZUL ZING

- Process more data in less time
- Hold 100s of GB of data right next to the application in Java heap memory
- Deliver real-time business analytics and handle heavy query loads with ease
- Maximize operational and resource efficiency
- Deploy rapidly with little or no JVM tuning
- Improved stability and availability (no “out-of-memory” errors)



Solution: The GridGain Platform With Zing

By deploying GridGain on Zing, enterprises and Big Data providers can process more data in less time, producing results orders of magnitude faster than traditionally architected systems.

Data Analytics at Business Real Time with GridGain and Azul

To build truly scalable applications for large datasets with real-time capabilities, the integration of in-memory storage (IMDG) with in-memory processing (IMCG) is crucial. Plus, the application must be able to hold and process large amounts of data in-memory without slowing down. GridGain with Azul Zing delivers both for your real-time data analytics and business intelligence systems.

Distributed Deployment & Provisioning

GridGain is the first IMCG that simplifies deployment and providing issue by providing “zero deployment” capabilities. With “zero deployment” all necessary JVM classes and resources are loaded on demand.

Distributed Resource Management

GridGain provides the most sophisticated discovery system among any IMCG. A pluggable and user-defined Discovery SPI is at the core of GridGain’s ability to provide fully automatic and consistent discovery functionality for GridGain nodes. GridGain is shipped with several out-of-the-box implementations.

Distributed Execution Models

GridGain supports many different execution models, providing the end-user with the widest set of options on how a particular algorithm can be implemented and ultimately executed in the distributed environment. GridGain’s IMCG provides direct support for the following execution models: MapReduce, Streaming, MPP/RPC, MPI-style, AOP/OOP/FP/SQL.

Try It Today

To arrange a test drive of GridGain’s in-memory data processing platform leveraging Zing, contact us:

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