



Azul Systems & GemStone Systems

Delivering Highly Scalable and Available Data Grids
for Extreme Transaction Processing



Key Benefits of Partnership

- Enables the delivery of new, more data-intensive services
- Delivers the extreme levels of performance, availability, scalability and resiliency required by businesses to remain competitive and grow
- Turns demanding batch applications into real time services
- Reduces cost and complexity of scaling database-bound architectures
- Enables the delivery of actionable information to the right application at the right time

NEW CHALLENGES

Reliability, scalability, performance and resiliency continue to be critical success factors for IT organizations in a wide spectrum of industries. For example, in capital markets, exploding electronic trading volumes and massive datasets, exotic derivatives products, and regulatory compliance are driving the need for higher throughput and faster response times. In e-commerce, businesses are deploying composite web services, analytics and applications that link existing systems via service-oriented architecture (SOA) that is increasing workload demand. Even many healthcare organizations are challenged in meeting the data management needs of medical practitioners, who require the access to complex and large data objects like MRI scans and other patient records over distributed networks.

As global businesses continue to rely heavily on distributed systems to deliver synchronized data sharing functions, it is vital that applications be able to quickly access and transmit data with minimal latency.

Unfortunately, transaction processing and web application deployment performance is often impaired by poor management of stateful data, high latency of conventional database-bound architectures, and slow execution of complex data transformations. The net result is slow data access, limited throughput, escalated costs and poor quality of service.

Azul Systems and Gemstone Systems have created a strategic alliance to address these challenges.

BREAKTHROUGH PERFORMANCE AND SCALABILITY FROM AZUL SYSTEMS AND GEMSTONE SYSTEMS

Azul Systems, a global provider of enterprise server appliances, enables organizations to maximize the ROI of business-critical Java™ applications by allowing applications to transparently achieve 5X to 50X greater scalability and throughput while delivering consistent performance even under unpredictable loads. GemStone Systems is the leading provider of the Enterprise Data Fabric (EDF), an in-memory distributed data caching solution that offers data services solution for enterprise business architects and data infrastructure managers to build, enhance or simplify access, distribution, integration and management of information within and across the enterprise.

Together, Azul Systems and GemStone are collaborating to deliver highly scalable and available data grids for Extreme Transaction Processing (XTP). The joint solution provides breakthrough scalability and performance, allowing faster response times and higher throughput to process stateful data in enterprise IT infrastructures along with unprecedented high availability (HA).

HIGH PERFORMANCE DATA GRID

The combination of Azul Compute Appliances and GemStone GemFire provides a high-performance data grid to address the growing data management needs of business critical transaction processing applications. The Azul Compute Appliances provide large amounts of highly scalable CPU and memory capacity to scale grid nodes and enable the co-location of processing and data. With advanced data virtualization, distributed caching and complex event processing (CEP) capabilities, the GemFire EDF enables the delivery of actionable information to the right application at the right time.

The combined solution allows stateful data to be managed in memory, providing breakthrough scalability and performance. As a result, organizations gain the following advantages:

- High performance computing solutions that scale beyond 300 GB per node and multiple TB per grid
- Provides sub-second data access speed by co-locating applications and data
- Large data throughput of 40,000 writes per second per node
- Data accessible by any application whether hosted on Azul or not
- Ensures replication, consistency and high-availability of stateful data
- Higher infrastructure efficiency through simpler, consolidated data grids with industry-leading power and cooling efficiency

HIGH PERFORMANCE SOLUTIONS FROM GEMSTONE SYSTEMS

High Performance Solutions from GemStone Systems

- GemStone's core product, GemFire is the Enterprise Data Fabric (EDF), which provides an in-memory distributed caching solution to manage increasing volumes of enterprise data and streaming events with almost zero-latency. The enterprise data fabric harnesses the memory and disk resources across a network to:
 - Increase application throughput by eliminating data access bottlenecks.

- Create a highly resilient computing environment while simplifying the deployment architecture
- Provide complex event processing infrastructure to process events and analyze them in conjunction with other enterprise specific information.

MASSIVELY SCALABLE AZUL COMPUTE APPLIANCES

Azul Compute Appliances provide a massively scalable infrastructure designed to improve the performance, scalability and TCO of enterprise Java deployments. Applications are offloaded transparently from traditional servers to the appliances where they gain access to nearly unlimited, highly scalable CPU and memory resources. The result is:

- 5X to 50X improvement in application scalability and throughput
- 5X improvement in peak response times
- Industry-leading energy and space efficiency reducing power and cooling requirements by 50% or more
- Simplicity and ease of deployment at a fraction of the cost of traditional server platforms.

SERVICE AND SUPPORT

From implementation to launch and beyond, Azul Systems and GemStone are committed to our customers' on-going business success. We provide access to skilled technical engineers and flexible, easy-to-use telephone and Web resources for timely, effective assistance.

AZUL SYSTEMS AND GEMSTONE SYSTEMS

The demand for sustained performance combined with multiple applications accessing multiple sources of data stored in different locations is clearly stressing the data management fabric of most companies to the limit. The industry leading performance achieved in data grids by combining Azul's hardware with GemStone's GemFire Enterprise Data Fabric will provide instantaneous application response times to customers without compromising linear scalability.

