



Solution Brief

GemFire®
IBM System x™
IBM BladeCenter®
Intel® Xeon® processor



IBM System x™



GemFire® on IBM System x™ and BladeCenter® - An IT Foundation for the Agile Enterprise

Performance, scalability and reliability are critical success factors in competitive industries like capital markets, where trends such as electronic trading, exotic derivatives products and regulatory compliance are driving the need for innovative hardware and software technologies. The growing move towards automated execution systems - 57% of hedge fund orders and 50% of NYSE's trade flows will be handled without human intervention by 2007 - is causing a data deluge that cannot be handled by existing hardware and data infrastructures. Furthermore, increasing data volumes also pose a challenge to the compute/analytics grid environments that are often prone to scalability constraints.

GemFire® on IBM System x™ and IBM BladeCenter® is a solution designed to address such growing needs of financial IT organizations and their distributed application environments. It is a packaged solution that includes **GemFire Enterprise™**, a high-performance data infrastructure software, and the robust **IBM BladeCenter®**, which includes the next generation of 64-bit processors such as **Intel® Xeon® 5000** series. These pay-as-you-grow solutions are designed to deliver exceptional availability, simplified manageability, outstanding performance and revolutionary scalability to help you build a cost-effective, flexible IT environment that can help you run your business.

GemFire® on IBM System x™ and BladeCenter® represents a potent combination from GemStone that incorporates IBM and Intel hardware to provide the following features:

- **Openness** and commitment to industry standards and platforms
- **Virtualization** along multiple dimensions - data, servers and processors
- **Technology innovation** that includes unique expertise in data management, mainframe-like innovations on x86 platforms, and continuous advancements in processor technologies
- **Support and Services** that include cross-trained software and hardware experts that can quickly understand, diagnose and rectify complex IT issues

GemFire® on IBM System x™ and BladeCenter® data centers provide the ability to deliver high performance compute and data management in an energy efficient manner. GemFire® on IBM System x™ and BladeCenter® is an ideal fit for multiple applications such as electronic trading and order management systems, market data and reference data systems and compute/analytics grids in areas like risk management.

Such widespread applicability within a financial enterprise is in large part due to the following salient technical benefits that GemFire® on IBM System x™ and BladeCenter® offers:

- Increased scalability to handle growing compute and volumes in key business applications
- High-performance data access, distribution and real-time data analysis
- Reduced power and cooling costs leading to higher performance/watt characteristics
- Operational Reliability and high system availability at low cost of ownership
- Seamless architecture scale-out for phased enterprise wide deployment

The GemFire® on IBM System x™ and BladeCenter® solution is already solving real customer problems in large investment banks:

- *An equities trading division has been able to achieve a 10X throughput increase in their trade processing systems by using this technology. They are able to keep their order books open up to market close and not lose customer orders.*
- *A risk management group was able to slash data latency by 600% and complete their grid-based risk calculations that used to take 9 hours in under 2 hours. They can now run intra-day risk calculations.*
- *A large bank's foreign exchange desks in London, Tokyo and New York have complete visibility into each other's trade positions and operate round-the-clock with guaranteed disaster recovery mechanisms*

GemFire® on IBM System x™ and BladeCenter® is available in the form of two packages, depending on the nature of applications being deployed on this platform:

GemFire® on IBM System x™ and BladeCenter® Data Transactions - designed for high performance transaction environments such as electronic trading, online portals, payment/claims processing.

GemFire® on IBM System x™ and BladeCenter® Data Grid - designed for data-intensive Grid applications such as risk analytics and calculations, actuarial analysis, pricing engines and scientific simulations.

Information URLs

- For more information about GemFire® on IBM System x™ and BladeCenter®, visit <http://www.gemstone.com/solutions/xfire.php>
- For more information regarding GemFire Architecture, visit <http://www.gemstone.com/products/gemfire/edf.php>
- To learn more about IBM System x™, visit <http://www.ibm.com/systems/x/>
- To learn more about IBM BladeCenter®, visit <http://www.ibm.com/systems/bladeCenter/>
- To learn more about Intel® Xeon® processors, visit <http://www.intel.com/products/processor/xeon/index.htm#5000>

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