IBM Technical Computing solutions for financial services

A shared platform uniting risk analytics and Big Data

Highlights

- Get higher-quality results faster with low latency, high performance platforms

- Enable more accurate assessment of risk exposures in near real time

- Lower operating risk while improving agility with advanced cluster, grid and cloud technology

- Reduce costs by leveraging a heterogeneous shared infrastructure for compute- and data-intensive workloads such as Big Data

Risk management is the name of the game for firms in the financial marketplace. Regulations like Basel III and Solvency II are pushing companies of all types and sizes to assess risk in near real time, specifically within the areas of credit and liquidity, using analytics to understand enormous amounts of data almost instantly. Facing increasingly restrictive economic pressures, organizations are looking for better insights into market needs, ways to improve IT performance and reduce operating costs, and apply accurate risk insights throughout the enterprise.

The IBM Technical Computing portfolio provides low-latency, reliable, high performance solutions for automating, accelerating, scaling and managing risk and other analytic workloads for better decision-making in financial markets. We offer solutions that include high performance servers, advanced parallel file management, leading storage systems, superior risk management application software, as well as proven middleware and cluster, grid and high performance computing (HPC) cloud management software. These offerings accelerate time-to-results for compute- and data-intensive applications, helping address compliance, as well as improve risk and liquidity management.

Reduce risk with analytics

To optimize the balance between risk and reward, financial institutions need managers to make informed decisions that reflect relevant risks. This is true for risk managers investigating how different scenarios may

impact portfolio valuations, to traders running "what-if" simulations that identify which trades will reduce risks and conserve capital.

An integrated approach to analyzing risk is found in Algorithmics®, an IBM company that has solutions that provide firms with an advanced simulation-based approach to building an enterprise-wide understanding of risk, allowing firms in financial markets to run Monte Carlo simulations of instrument valuations through time and across possible scenarios.

Improve results with speed

IBM Technical Computing solutions also enable trading firms to optimize their algorithmic trading applications to allow for ultra-low latency. Our platforms can deliver increased messaging speed and efficiency while reducing errors and diminishing overhead, all of which contributes to potentially dramatic business benefit. This technology allows for increasing analytics, broadening the spectrum of electronically traded financial instruments and targeting new sources of liquidity.

Enhance responsiveness with cluster, grid and cloud computing

An active risk management approach requires a highly scalable infrastructure that can meet large computing demands, and allow calculations to be conducted in parallel. Private HPC clusters, grids and clouds enable multiple applications and lines of business to effectively utilize a single heterogeneous, shared infrastructure. These technologies can be used to more effectively respond to variety of business areas including pricing of market and credit risk, compliance reporting, pre-trade analysis, back testing and new product development.

Within the IBM Technical Computing portfolio, the IBM Platform Computing™ product family offers IBM Platform™ Symphony, a powerful, enterprise-class grid management solution for organizations running compute- and data-intensive applications. Platform Symphony accelerates a wide variety of parallel applications, quickly computing results while making optimal use of available infrastructure. It provides the agility required to predictably meet and exceed throughput goals for the most demanding risk management applications.

The Platform application software solutions help manage and accelerate workload processing and guarantee the completion of workloads across a distributed, shared IT environment, while fully utilizing all HPC resources—regardless of operating system or architecture. The result is improved application performance for a significantly reduced total cost of ownership.

" Platform Computing and its enterprise grid solution enable us to share a formerly heterogeneous and distributed hardware infrastructure across applications regardless of their location, operating system and application logic, therefore helping us to achieve our internal efficiency targets while at the same time improving our performance and service quality."

—Head of global markets and treasury infrastructure, European Bank

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Manage risk with a complete technical computing portfolio

New regulations are changing trading and risk practices by rewarding firms that actively manage their risk exposure. To minimize requirements for capital reserves requires greater infrastructure capacity, utilization and performance. The IBM Technical Computing portfolio can help firms in financial services perform more rigorous risk analysis with more data to properly simulate market and credit risk, and meet regulatory requirements.

- Pre-integrated, pre-tested systems help reduce implementation risk and speed time to solution delivery.
- Pattern-based middleware improves consistency, reduces administrative costs and delivers new functionality faster.
- Focused technical and distributed computing management software helps you create, integrate and manage shared computing environments that are used in compute- and data-intensive applications.
- A unified systems management environment automatically optimizes IT resources and speeds application system deployment, delivering IT services efficiently while reducing management and administration costs.
- A secure, reliable and tested infrastructure accelerates the creation of cloud solutions to reduce costs and speed deployment of new services.

Powerful, comprehensive and intuitive

The integration of new technologies and computing approaches in financial services can help firms prevent repeats of past risky behavior, allowing them to get a more holistic view of exposures to counterparties and speed calculations of credit value adjustments (CVA). IBM Technical Computing portfolio solutions are a powerful, efficient means to deal with Big Data analytics.

They are also complete, providing compute, storage, networking, software, support and services. And the solutions are affordable and easy to deploy, with simplified administration that uses intuitive management tools.

Why IBM?

IBM empowers companies to achieve better results faster by bringing comprehensive, high-performance technical computing platforms to financial services firms. These organizations can improve their productivity and reduce costs by deploying our integrated technical computing solutions, including hardware, software and services. Serving 60 percent of the top financial services firms with over five million processors under management, recently acquired IBM Platform Computing software can help you optimize your infrastructure and accelerate time to value. IBM systems provide high performance, dense and power efficient compute, storage and networking capabilities that can scale to address smaller problems today, while growing to solve more complex problems tomorrow.

For more information

To learn more about the IBM Technical Computing solutions for financial services, please contact your IBM representative or IBM Business Partner, or visit the following website:
ibm.com/technicalcomputing

Additionally, IBM Global Financing can help you acquire the IT solutions that your business needs in the most cost-effective and strategic way possible. We'll partner with credit-qualified clients to customize an IT financing solution to suit your business goals, enable effective cash management, and improve your total cost of ownership. IBM Global Financing is your smartest choice to fund critical IT investments and propel your business forward. For more information, visit: **ibm.com**/financing

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