

Platform™

The Power of Sharing

"Thanks to the excellent cooperation with Platform, the traders, the developers and the data center can use the grid resources efficiently."

Oliver Scholl
Group Leader—Operations Management
Landesbank Baden-Württemberg

Virtualized, scalable, dynamic data center for reliable calculations

Customer

Landesbank Baden-Württemberg (LBBW)

Solution

Platform Symphony
Platform Professional Services

Industry

Financial Services

Results

- 80% reduction of the run time of available simulation applications, enabling more calculations to be carried out in less time
- Highly scalable infrastructure able to process an unlimited number of calculation tasks
- Standardized HPC platform for all investment banking business applications
- Fast amortization of IT investments, due to the use of industry standard hardware and software components and technology
- Platform increased the trading department's effective computing power by clustering its existing computers into a single, virtual resource
- Platform parallelized and accelerated calculations in LBBW's business-critical risk management process

Challenges

- LBBW is critically dependent on its ability to manage the risk associated with the huge volume of loans, securities and other financial products that make up its customers' accounts
- In order to expand its investment banking business sector, LBBW was looking for a scalable, standards-based and cost-effective solution that could easily meet future needs
- Merging disparate information technology systems into a single, standardized IT environment had to be done 'on the fly' in order to maintain service levels for users



Merger and standardization

Landesbank Baden-Württemberg (LBBW) is a Top-50 international commercial bank offering a full range of business and personal banking. The bank was founded by a merger of three well-established German banking institutions. After the merger and the subsequent integration of three very different IT infrastructures, the combined IT environment was analyzed and standardized in order to gain the best return on investment.

Platform partners with LBBW for 2007 upgrade

After evaluating options, LBBW decided to upgrade its grid infrastructure in 2007. Platform Symphony was chosen as the scheduling engine for the grid. Platform Symphony ensures optimal utilization of existing IT resources by dynamically assigning resources according to requirements. Bottlenecks are identified and removed before they have any impact, and the effective management of LBBW's computing capacity significantly improves the performance of its trading application. Existing resources are used more efficiently, improving the performance of their entire computer network. As a consequence, application speeds are up (in some cases significantly), allowing their users to work more productively.

LB BW

Landesbank Baden-Württemberg



Platform Symphony provides the API for the grid applications and distributes jobs over a new Microsoft Windows Server 2003 with 200 dual- and quad-core servers, for a total of 1,000 compute engines. Platform Symphony can fully exploit the potential of the x64 processor architecture.

Platform Professional Services guided the project from planning through implementation, advising the bank on software strategies and requirements definition throughout the entire process. An important additional factor in LBBW's decision to use Platform was the ease with which they were able to port applications on several computers without requiring code modifications.

Two million simulations per day

The adaptation of the existing business applications to grid computing-derivative constructions with Platform Symphony only took a half day. LBBW was in the position to start recouping its investment costs immediately. The performance improvements were tremendous. The investment banker can now carry out two million simulations per day and thus offer clients better derivatives.

Platform dramatically increased the availability of computing capacity. In addition, the crash of one computer does not affect the system and computing capacity is maintained. Based on the fault-tolerant system architecture, full interruptions during voluminous calculations are a thing of the past. If simulations cause errors, they can be aborted and continued on another node in the grid. It is not necessary to restart the calculation from scratch to do this, and saves time and allows even more simulations to be carried out.

Future plans

LBBW cleverly use the application service profiles in order to juggle idle time and improve the CPU load. Individual applications are built with Service Oriented Architecture so that the algorithms can be reused by other applications. While the dialogue mode of the derivatives application is predominantly run during the day, the application executes tasks overnight so that results are ready the next morning. This, as well as the cost-effective industry standard hardware, allowed LBBW to break even on their investment very quickly.

Since the high scalability of the solution allows many applications to be grid-enabled and run on the same infrastructure, and precludes the need for application silos. Plans to on-board more applications in the future are ongoing, for example, another risk management application is currently in its trial phase. This will allow the risk associated with option pricing, to be more precisely evaluated using multiple-day market development forecasts. A web interface will allow this software to access directly the existing Monte Carlo algorithms.

With Platform Symphony, a theoretically unlimited number of calculation tasks can be processed simultaneously. Should the investment business of the state bank grow, the simple expansion of the Platform-based grid with additional systems can provide the desired computation capacity.

Platform™

Platform Computing provides software that dynamically connects IT resources to workload demand according to business policies. Over 2,000 of the world's largest organizations rely on our solutions to improve IT productivity and reduce data center costs. Platform has strategic relationships with Dell™, HP, IBM®, Intel®, Microsoft®, Red Hat®, and SAS®. Building on 17 years of market leadership, Platform continues to help data centers be more efficient, responsive and dynamic. Visit www.platform.com

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