



Standard Chartered

A leading international bank that offers wide range of products to its clients, as well as tailored solution to manage their individual requirements.

Industry: Financial Services
Geography: Europe

- Standard Chartered needed to be able to offer more complex financial products to meet client demand for advanced hedging solutions.
- Standard Chartered turned to a solution often used in such situations in the financial services space – it built a grid network using TIBCO's GridServer software. It selected GridServer based on its product performance and TIBCO's proven ability to successfully consult throughout the process.
- Results were impressive with overnight batch processes running many times faster. The grid was also able to produce intra-day reports for trading that had previously not been feasible. The project is so successful that Standard Chartered is rolling out GridServer technology globally at an enterprise level.



Gaining Speed, Scale and Market

Standard Chartered

As a leading international bank, Standard Chartered focuses its attention primarily on the emerging markets of Asia, Africa, and the Middle East. Its Financial Markets business offers a wide range of products to its clients, as well as tailored solutions to manage their individual requirements.

Business Issue

Standard Chartered offers its customers innovative products to meet their growing demand for advanced hedging solutions appropriate to their risk profile. It knew, however, that the complexity of pricing and risk managing the next-generation of products would demand much more computing power than the earlier products.

The computational intensity of many of these new products is staggering. Just to arrive at an accurate price, they require thousands of simulations. And to measure the sensitivities to market movements and to run risk reports (essential for traders and risk controllers to manage the deals), the number of simulations required increases by several orders of magnitude. In the end, each deal calls for many millions of calculations requiring a very large amount of processing power.

Faced with this large computing requirement and the limited processing power at its disposal, Standard Chartered was

forced to put a cap on the number of complex exotics deals it could manage. This meant that only larger deals were able to justify the costs involved in their execution, and the bank was unable to price them as aggressively as it would like, ultimately impacting volumes, revenues and the ability to grow its exotic financial products franchise.

Technology Solution

Standard Chartered still nursed the desire to meet its clients' demands for more sophisticated financial products. It responded to the computing challenge of the complex products by adopting a solution popular in financial markets: multi-parallel processing or grid processing. Rather than going through millions of computations sequentially, grid processing runs them in parallel.

After an intensive survey of competing products, Standard Chartered chose the TIBCO GridServer solution based both on its performance, and TIBCO's proven ability to successfully consult throughout the implementation process. This helped the Quantitative Development team migrate FABS, their complex exotics system, to the grid platform within four months.

Initially, FABS used the grid only for its batch processing. But interactive usage of the risk engine is now being enabled with users in London, Dubai, New York, India,

Hong Kong and Singapore. The initial focus on low-volume complex exotics has also broadened to support risk calculation for first-generation exotics using more-advanced models; here, deal volumes can be 1000 times higher.

Results

The quantum leap in the available processing power provided by grid resulted in significant and immediate efficiency gains. The first proof of concept decreased the processing time of the overnight batch runs for complex exotics deals by a factor of 12 with a very small number of processing engines. The bank then went into production with 80 engines and the grid has now been scaled up to 350 engines to cope with the growth in trade volumes by adding many more inexpensive CPUs. The current plan is to double the capacity of the grid in the next quarter, through the purchase of new hardware, and then to scale further through the year by harvesting spare capacity of existing servers used for other applications. The availability of such abundant processing power has been a key enabler for the growth of any increasingly successful complex exotics business.

The increase in processing resources has also enabled the bank to produce more-detailed and more-accurate risk reports in its end-of-day batch, which runs in the relatively short window between London close and Singapore open. The bank is also now able support interactive risk reporting and the previous deal cap, brought about by the dearth of computing power, has been removed.

The rollout of GridServer was originally a tactical decision to handle quantitative instruments, mostly traded out of Asia. It has now become part of a wider strategic plan. Having secured such convincing results for Exotics, Standard Chartered has decided to adopt TIBCO GridServer as its global enterprise standard.

It is always a business need that drives IT expansion. In this instance, Standard Chartered Bank wanted to offer its clients an ever-wider range of exotic products. The solution to the challenges involved was found in the technology innovation of grid computing. The power of grid computing has enabled Standard Chartered to increase both the sophistication of its product range and its capability to accurately calculate and trade risk.



TIBCO Software Inc. (NASDAQ: TIBX) technology digitized Wall Street in the '80s with its event-driven "Information Bus" software, which helped make real-time business a strategic differentiator in the '90s. Today, TIBCO's infrastructure software gives customers the ability to constantly innovate by connecting applications and data in a service-oriented architecture, streamlining activities through business process management, and giving people the information and intelligence tools they need to make faster and smarter decisions, what we call The Power of Now®. TIBCO serves more than 4,000 customers around the world with offices in more than 20 countries and an ecosystem of over 200 partners. Learn more at www.tibco.com.

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