

Platform Symphony helps insurance firm improve performance

Support for strategic business decision-making

Overview

Business challenges

- Scale out from a small, overloaded cluster to hundreds of machines in order to support strategic decision-making regarding the 'inherited estate'
- Handle increased workload brought on by a stricter regulatory environment

Solution

- Platform Symphony helped accelerate financial modeling using one of the leading applications for actuarial modeling tools in the life insurance sector

Benefits

- Ability to run up to 10x more scenario models at once
 - Reduced time to run complex stochastic simulations from overnight to same day
 - Capability to run MoSes on 1,000 CPUs simultaneously, without performance degradation, with the potential to scale further and meet any future rise in demand
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Established in 1848, this insurance company is an international retail financial services company with significant operations in Asia, the US and the UK. The company is particularly focused on helping its clients save for security in retirement.

Deploying a powerful tool to help assess business decisions

Four years ago, one of the company's units began to deploy IBM® Platform™ Symphony, a service-oriented infrastructure software solution developed specifically for organizations that deploy multiple applications in a grid, utility or cloud computing environment. Platform Symphony eliminates the complexity of managing a shared pool of nodes, enabling enterprise-class resource sharing, availability, security and scale.

Platform Symphony was selected after competitive performance evaluations with another HPC solution. IBM® Platform Computing™ won not only as the best solution but also as the best company to do business with including technical innovation, the willingness to partner and make product enhancements in order to deliver a solution that was customized to the company's requirements in relation to the applications used in its' HPC environment.



“The ability to scale out so quickly with Platform Symphony is very beneficial.”

— Head of Actuarial Systems and Modelling
Major European Insurance Firm

IBM Platform Computing enables the quick ‘up-scaling’ of compute resources

The firm now uses Platform Symphony to accelerate financial modeling using one of the leading applications for actuarial modeling tools in the life insurance sector, MoSes from Towers Perrin. Though MoSes was the ideal application for the company’s modeling needs, it could not scale well past 100 nodes. As the demands for ever more models, with ever greater granularity grew, the company needed to find ways to scale the solution across more and more CPUs.

Currently the firm has a total of 1,000 CPUs spread across two data centers. According to the Head of Actuarial Systems and Modelling, with Platform Symphony in place to orchestrate the MoSes workload, they can now run up to 10 times the number of models as before, with 5 - 6 times more data, in a comparable time frame. Processes that took 14 hours in the past can now be completed in less than three hours. Now instead of waiting for results to come in over night, decision makers can have actionable information during the course of the day.

These results are due to the ability to effectively run MoSes simultaneously across a much larger number of cores than in the past. “The ability to scale out so quickly is very beneficial,” says a company media spokesperson.

Support for key decision-making processes

Support for key decision-making processes Platform Symphony played a very key supporting role in a strategic program that the company undertook in order to determine whether it would be beneficial to carry out a re-attribution of ‘inherited estate’ money to policy holders. The inherited estate is money that was built up in the With-Profits Sub-Fund (WPSF) over many years from a number of sources, including contributions from shareholders. It is the excess over and above the amount of money the company expects to pay out to existing policyholders.

Solution component

Software

- IBM® Platform™ Symphony
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The eventual decision was that “after extensive assessment, we concluded that maintaining the current operating model for the WPSF is in the best long-term interest of both current and future policyholders and shareholders,” according to a media spokesperson. This decision was reached after performing many comprehensive and extremely complex analyses on the Platform Symphony-enabled grid. Each potential scenario was modeled extensively using stochastic simulations until the firm was confident that the proper course of action was taken. The Head of Actuarial Systems and Modelling believes that without the ability to scale out to hundreds of computers using Platform Symphony, the company would not have been able to make as accurate a decision.

Helping to meet government regulations

A third use is to support calculations required by insurance regulators in the UK. In order to meet the growing and very onerous requirements, the company needed to deploy what PriceWaterhouseCoopers called a “weapon of mass computation” to produce the information mandated for regulatory returns under the new realistic reporting regime demanded by the UK insurance regulator, the Financial Services Authority (FSA). Though the increased regulatory environment imposes a certain burden upon companies, organizations such as the company under discussion were far-sighted enough to realize that these kinds of complex models could also provide unique insights into their business dynamics and open up opportunities to maximize returns for stakeholders while at the same time reducing risks.

Of course with stochastic modeling, the more models one can run, the more likely the aggregated results will provide an accurate picture of the imagined scenario. “Since Platform Symphony allows the firm to run its hardware at ‘close to 100 percent,’” according to the media spokesperson, “the company can model hundreds of scenarios in a short time improving its ability to assess the risk of ruin or other bad outcomes before making important decisions.”

While it is not the only company that has taken this approach, there are still many companies in the insurance industry that have not implemented tools like Platform Symphony that allow them to improve the performance of their compute applications and hardware. There is also still many other areas that insurance companies can extend the value of their HPC infrastructure for example, again according to PriceWaterhouseCoopers, extending the modeling to Individual Capital Assessments. These help firms identify major sources of risk within their business (credit, market, liquidity, operational and insurance risks) and to perform appropriate stress scenario testing for each of the identified risks.

For more information

To learn more about IBM Platform Computing please contact your IBM marketing representative or IBM Business Partner, or visit the following website: ibm.com/platformcomputing



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