

Finance Modelling



Introduction

The aim of the NextGRID project is to devise the next generation Grid architecture. In order to design and validate this architecture, it is necessary to experiment with new middleware components, and to use them in application level experiments to verify that they can meet the needs of business grid users.

Financial Applications Level Experiment

The financial sector currently depends heavily on process and data intensive computations to deliver competitive advantage. Ever increasing regulatory demands increase the need for fast and reliable computing capacities by imposing higher standards for availability, system integrity and security on financial institutions. At the same time, financial institutions feel the pressure to cut development times and costs for the introduction of new products and the need to reduce their IT costs.

Grid-based solutions will become increasingly important in this sector, since they offer a higher utilization of existing resources and offer the additional opportunity to increase the computational capacity temporarily by adding external resources in the case of demand peaks.

Financial applications are particularly suited to grid-based experimentation and research as many applications involve process and data intensive computations. Two applications that pose particular challenges to the NextGRID architecture are the chosen demonstrators - Implied Volatility and Derivative Pricing. Whilst both applications have a different focus and goal within the financial sector, they share basic common requirements with both applications for example demanding a high availability of common components.



Current Status of Experiment

Initial results from the experiments are promising and it is anticipated that that the project partners involved in these experiments will go on to develop a set of Grid services that could be sold to potential customers i.e. banks. The primary business benefit of such services is the ability to perform calculations in real-time, taking advantage of short-term market opportunities.

Legal Information:

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