Techila Grid into use at the Prague University of Economics

Techila Technologies Oy, the recent awardee of 2009 INNOFINLAND Prize, has delivered their grid product to the University of Economics, Prague. The grid is used to remove the typical bottleneck in research, the lack for efficient demanding calculation resources, through taking into use the idle capacity of PCs. In Prague Techila Grid is combined with the LISP-Miner system, developed at the University and based on the data mining method GUHA. It opens up vast new possibilities to solve much more complex tasks and thus to extract more interesting information from analyzed data.

- For Techila, this is a significant first deal with foreign academic research institutions. The connection to the University of Economics, Prague came through Tampere Technical University. The research community’s positive experiences with our grid are the best sales tool for our product particularly in the academic world, says Rainer Wehkamp, CEO of Techila Technologies Oy. – This agreement also showcases a somewhat new and interesting usage for our Techila Grid as it is harnessed to support data mining.

In Prague the combination of GUHA and Techila Grid offers new and faster methods for searching into masses of data.

- Previously we only had a theoretical idea of grid technology. Now we have very quickly been able to deploy Techila Grid at our university and implement a new version of our system that uses Techila Grid for distributed computing of data mining tasks. The results are very promising, says Milan Simunek, who has implemented the LISP-Miner system.

- We are aiming our research at the automation of the whole data mining process. The issue we are facing is an enormous growth in the complexity of data mining tasks and the necessity to run them many times in several iteration steps. Now together with this grid solution we are able to overcome this problem by dividing complex calculations among several pc’s integrated into the grid. This way we are minimizing the time of each iteration and thus the total time of solving a task too.

The University of Economics, Prague, plans to increase Techila Grid’s capacity and to add more university’s PCs to the grid.

- The challenge still waiting to be solved is how to balance the calculation load evenly among the grid PCs. The nature of the under-laying GUHA algorithm is highly suited for mining data but it was not developed for distributed computing. We are trying to add a new logic and heuristics to make the grid tasks more balanced, which again will speed up getting results.

- Our students are involved in research and we expect new master and Ph.D. thesis to be written based on combining the LISP-Miner system and Techila Grid.

Techila Technologies Oy, a Finnish company established in 2006, has developed a grid product Techila Grid. It distributes demanding calculations to an environment’s pc’s and servers and uses their idle capacity in its network bringing in results in minutes instead of days. Techila Grid’s users are primarily in the sectors of bio sciences, economics/financial and university/academics. Techila was awarded the 2009 INNOFINLAND Prize by the President of Finland.

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