



Unlimited computing performance with Techila's solution

Microsoft Windows Azure™



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The computation of research results is often the most time-consuming part of a research project. The importance of computational research is in a growth: the use of computing has increased during the recent years also in fields, which traditionally have not been active users of these methods. The specialist in high-performance computing, Techila Technologies Ltd, accelerates existing and new applications with its middleware solution and the Windows Azure™ cloud service. This cuts down the time spent on computing, without compromising the accuracy of computing.

In modern research, the requirements placed on computing and data analysis are continuously increasing, which results in a need for more versatile computing. The greatest challenge in high performance computing is no longer the processor performance for the computing capacity, but how the applications can utilize the virtually unlimited computing capacity available.

Techila Technologies, founded in 2006, specializes in high-performance computing. Techila Technologies provides a middleware solution, which enables an easy integration of existing and new applications and the computing capacity available on in the cloud. The computing utilizes Windows Azure, an open and flexible cloud-based application platform service. With this service, applications can be developed, published, and run in the cloud. Among Techila's largest clients are universities and research institutions, insurance companies, banks, and medical research organisations.

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Need for computing in growth

VTT, Technical Research Centre of Finland, is the biggest multi-technological applied research organization in Northern Europe. In its research, it utilises high-performance computing software. VTT provides versatile technology solutions and research services for both domestic and foreign clients in the private and public sector. VTT has recognised widely that requirements, changes, and efficiency of computing drive innovation, competitiveness, and success.

"The need for computing is in a strong growth, particularly within new fields of research. Because of this, the vision about the most effi-

cient computing methods and the investments in operational computing performance are in the center of the development of enterprises. Efficiency plus innovation will be The Thing – the race for competitiveness and continuous success requires absolutely differentiation in this field too,” says VTT’s CIO **Markus Ekman**.

He continues: “It is apparent that companies, especially those with strong research and development activities, have started to adopt this strategy and the chief technology officers and chief information officers are leading processes to build stronger computing platforms or networks.”

Speed under control

One of the greatest advantages of Techila’s solution is scalably adjustable speed. The user can choose easily how fast he wants to have access to the results. The computing performance can be adjusted by allocated Azure capacity. Because the Azure service can be utilized purely for computing, Techila enables achieving utilization rates, which can exceed 99 per cent. The accuracy of computing remains excellent, while the time used will be cut down to a fraction of the original time.

“The Techila technology enables harnessing tremendous amounts of computing capacity from the cloud easily and quickly. A project, which would have taken 35 years using conventional approaches was shrunk into just five days thanks to our solution. This is a clear benefit. Our solution offered almost 2,300 times acceleration,” says Eerola with a smile.

The solution of Techila Technologies makes research and development work faster and reduces the time-to-market. It also catalyzes unforeseen product innovations. The solution’s cost model is directly linked to benefits. Techila enables assigning Azure to serve purely computing. In this model, the user will pay only for the benefits received – that is, the computing time and performance.

Ease of use in the middle

The users and their views change in step with computing needs. This sets great demands for the technologies used in computing.

“High-Performance Computing leadership is about who has the best software. Many of the people who have use for HPC are not actually computer scientists. Techila’s middleware can easily be integrated as a part of the services, which makes the solution easy to take into use, even without special skills,” says **Mika Okkola** the Director of Developer and Platform Evangelism of Microsoft Finland.

Deployment made easy

‘It is of great value for IT decision-makers that we can offer a new service opportunity, which can be deployed in just a few minutes without support of external system integration consultants. In addition, both Azure and Techila’s solution are aligned with exacting security standards,’ Eerola says, describing the benefits of the solution.

VTT’s Ekman thinks computing will be a strong area of growth in the future. Techila Technologies seconds to Ekman, and they are taking ambitious steps forward. The company is aiming to bring high-performance computing to every desk and to everyone. ‘This has become possible because Windows Azure cloud capacity is inexpensive. Furthermore, Techila has made its utilisation in applications very simple,’ Eerola summarises.

“ Efficiency plus innovation will be The Thing.”

– VTT’s CIO Markus Ekman

The Microsoft products and technologies used in the solution:

Microsoft Windows Azure™

Further information

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