



Innovative solutions with industry leading support



Reading tops the University league for supercomputing in UK

05th July 2007, The University of Reading's Advanced Computing and Emerging Technologies (ACET) Centre now has the most powerful academic supercomputer in the UK – meaning even greater accuracy in research on areas which affect the lives of millions of people.

Thanks to a massive upgrade, the University's supercomputer is now the most powerful academic computer in Britain, and the second most powerful computer in the UK overall – second only to the supercomputer at nearby AWE in Aldermaston.

This means Reading now not only leads the strategic field of computational science in areas of modelling of complex systems, scalable algorithms, collaborative tools and environments, but also is at the forefront of the most accurate research into air pollution modelling, climate change, financial modelling, drug discovery, computational biology and meteorology.

Built using IBM technology, OCF, the UK's premier High Performance Computing (HPC) integrator, is responsible for the design, technology supply, installation and configuration of the entire supercomputer.

Professor Alexandrov said: "By upgrading our computer we have made it the most powerful used in academic research in the UK. The possibilities of use for this computer are endless. In addition to the advance of computational science, we will be at the cutting edge of giving more precise pollution predictions, speeding up the design of lifesaving drugs, investigating scenarios in climate change and thus making real changes to people's well being.

Since 1999, IBM has had close links with Professor Vassil Alexandrov, the University's leading expert on computational science and director of the University's ACET Centre.

"The expanding research collaboration with IBM is backed by the newly established ACET - IBM Institute for Computational Science which is planned to become an European centre of Excellence in the above areas and to lead the developments in Computational Science in UK and Europe and to foster strong collaboration between industry and academia."

Through OCF, the University has upgraded its IBM Blade Centre with 700 JS21 blades, equipped with 3040 IBM PowerPC 970 processor cores each running at 2.3 GHz clock speed with a theoretical peak performance (Rpeak) of 27.97 TFlops, all connected via a Myrinet Interconnect, reaching a measured performance (Rmax) of 19.04 TFlops using the Linpack benchmark, and ranks 36th in the June 2007 top500 list of the biggest supercomputers in the world. This system has access to a 60 TByte storage solution.

Chris Guy, head of the School of Systems Engineering at the University said: "This powerful supercomputer will vastly improve the capability of the University of Reading scientists and others to





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model many aspects of our world, including such things as climate change, novel drugs and financial markets.

“More accurate predictions in each of these areas, as a result of better modelling, will enable us to make real changes to people’s lives by, for example, showing where flood defences should be built or speeding up the development of life-saving drugs.

“The ACET Centre, School of Systems Engineering and the University is very proud to be able to offer these services to the academic community. Our students will greatly benefit by school staff being at the forefront of world-leading research with so many exciting and challenging applications.”

The news was revealed at the International Supercomputing Conference in Dresden, Germany last week.

The compute cluster is a significant upgrade to the earlier system which is still in use at the University and currently ranks 483rd fastest in the world. The design, installation and configuration of this earlier system was also by OCF.

About OCF plc

Based in Sheffield UK, OCF designs, integrates and supports High Performance Computing (HPC), Visualisation (HPV) and Data Storage (HPS) solutions for the public and private sectors.

OCF provides solutions for over 38 (21 per cent) of the UK’s 176 Universities, Higher Education Institutes and Research Councils. Plus, it provides solutions for over 25 commercial clients from the automotive, aerospace, utilities, pharmaceutical, manufacturing, oil & gas and financial industries.

OCF is the UK’s premier High Performance Computing integrator. OCF holds IBM Premier Partner status and enhances its IBM-based solutions using technology from a range of partners: AMD, Cisco, Dataram, Fakespace, Infortrend, Intel, Microsoft, Nallatech, Qlogic, Supermicro Computer, Inc., Tyan and Voltaire.

For more information, please visit the OCF website www.ocf.co.uk

IBM

For more information, please visit the IBM website:
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Reading University

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