

PRESS RELEASE

HCL and University of Melbourne to collaborate on Grid Computing Technologies

August 2, 2006: HCL Technologies Ltd (HCL), India's leading global IT services company, has signed a Memorandum of Understanding with 'The Grid Computing and Distributed Systems' (GRIDS) Laboratory at the University of Melbourne, Australia. HCL has teamed up with GRIDS to work collaboratively in the area of grid-computing and High-performance computing (HPC) using Open Source software.

According to the MoU, HCL and GRIDS will jointly conduct research in this field and undertake multilateral projects for academia and industries.

Grid Computing is an enabling technology that allows integration of heterogeneous IT resources such as CPUs and data storage units, and to operate resources as a single virtual computer. Almost every organization is sitting on top of enormous, unused computing capacity, widely distributed. Mainframes are idle 40% of the time. UNIX servers are actually "serving" something less than 10% of the time, and most PCs do nothing for 95% of a typical day. It provides the value of multi-million dollar computing capabilities at a fraction of the cost through harnessing idle computing capacity without resorting to new computer hardware. IDC (International Data Corporation) projects the total grid technology market opportunity at more than \$13 billion by 2007. According to Insight Research, worldwide grid spending will grow to approximately \$19.2 billion by 2010.

Area of cooperation includes:

- Joint research and development on Grid computing technologies
- Developing grid middleware tools
- Grid-enabling of applications
- Applying grid computing for commercial and academic purposes
- Joint multilateral projects with academia & industries
- Evaluate Gridbus suite of products developed by the GRIDS Lab and help boost it
- Sharing of Grid technologies via seminars and training events
- International technology programs including conferences, workshops, seminars & exchange of grid research knowledge

The GRIDS Lab has been carrying out revolutionary work in the design and development of next-generation computing systems and applications



for grid computing. "We are excited to collaborate with HCL, as it will help bridge the gap between the industry know-how and the academia R&D. HCL with its expertise in the application area and market penetration will help us to transform our Grid technologies to meet market requirements and make them attractive for enterprise applications" said Dr. Rajkumar Buyya, Director of GRIDS Laboratory, University of Melbourne.

HCL has identified grid computing as an area of growth and has been undertaking research in this area for sometime. HCL is actively involved in Grid-enabling of applications, research on various grid related technologies such as virtualization of physical resources, development of Grid middleware for on-demand resource provisioning, dynamic resource allocation, grid-wide resource information collection and job management using distributed resources in the grid. HCL is also working on developing a framework for rapid Grid-enabling of business applications.

Speaking on the alliance, Mr. Gunaseelan Narayanan, Senior Corporate Vice President, HCL said, *"It gives us great pleasure to be associated with Australia's premier academy. We as a company are focused on developing next-generation products and carving out niche markets for ourselves. The tie-up allows us to have access to world class research capabilities to serve our expanding client base with customized offerings in these areas."*

Grid technology is the foundation for emerging computing models including on-demand computing, adaptive enterprise, utility computing and Service-Oriented Architectures (SOA). There are many large scale projects that are using this technology currently such as BioGrid in Japan, National Grid Service in UK and Open Science Grid in US etc.

The Gridbus technology, developed by GRIDS Laboratory, is been used around the world to create a range of e-Science and e-Business applications from reading brainwaves and early detection of breast cancer to searching for cosmic particles and developing finance portfolio analysis. Friedrich Miescher Institute (FMI) for Biomedical Research, Switzerland has used an enterprise version of Gridbus technology in their distributed bioinformatics platform that helps in identification of patterns of transcription factors in the regulatory regions of mammalian genes. Other users of Gridbus include Unisys Corporation and Tier Technologies from United States, Japanese Osaka University, and CSIRO Land and Water Division in Australia. For more information please visit: <http://www.gridbus.org/>



About HCL Technologies

HCL Technologies is one of India's leading global IT Services companies, providing software-led IT solutions, BPO and remote infrastructure management services. Having made a foray into the services domain in 1997-98, HCL Technologies focuses on technology and R&D outsourcing, working with clients in areas at the core of their business. The company leverages an extensive offshore infrastructure and its global network of 26 offices in 15 countries to deliver solutions across select verticals including Banking, Insurance, Retail & Consumer, Aerospace, Automotive, Semiconductors, Telecom and Life Sciences. For the twelve-month period ended 31 March 2006, HCL Technologies, along with its subsidiaries, had revenues of US \$919 million (Rs 4,102 crore) and employed 29,948 professionals. For more information, please visit www.hcltech.com

About HCL Enterprise

HCL Enterprise is a leading Global Technology and IT enterprise with annual revenues of US \$3.3 billion. The HCL Enterprise comprises two companies listed in India - HCL Technologies & HCL Infosystems. The 3-decade-old enterprise, founded in 1976, is one of India's original IT garage start-ups. Its range of offerings span Product Engineering, Technology and Application Services, BPO, Infrastructure Services, IT Hardware, Systems Integration, and distribution of technology and telecom products. The HCL team comprises 34,000 professionals of diverse nationalities, who operate from 15 countries including 300 points of presence in India. HCL has global partnerships with several leading Fortune 1000 firms, including leading IT and Technology firms. For more information please visit www.hcl.in.

Forward Looking Statements

Certain statements in this release are forward-looking statements, which involve a number of risks, and uncertainties that could cause actual results to differ materially from those in such forward-looking statements. The risks and uncertainties relating to these statements include, but are not limited to, risks and uncertainties regarding fluctuations in earnings, our ability to manage growth, intense competition in IT services including those factors which may affect our cost advantage, wage increases in India, our ability to attract and retain highly skilled professionals, time and cost overruns on fixed-price, fixed-time frame contracts, client concentration, restrictions on immigration, our ability to manage our international operations, reduced demand for technology in our key focus areas, disruptions in telecommunication networks, our ability to successfully complete and integrate potential acquisitions, liability for damages on our service contracts, the success of the companies/ entities in which we have made strategic investments, withdrawal of governmental fiscal incentives, political instability, legal restrictions on raising capital or acquiring companies outside India, and unauthorized use of our intellectual property and general economic conditions affecting our industry. The company does not undertake to update any forward-looking statement that may be made from time to time by or on behalf of the company. Other product or service names mentioned herein are the trademarks of their respective owners

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