André Erlich
VP Technology and General Manager
36-38, rue de la Princesse, BP 45
78431 Louveciennes Cedex
France

SchlumbergerSema

Date: October 19, 2001

Dr. Ken Kennedy
Ann and John Doerr Professor of Computational Engineering
Director, Center for High Performance Software
Rice University, MS-41
6100 Main Street
Houston, Texas 77005

Dear Dr. Kennedy,

As you know, Schlumberger has computational and network resources around the world. We are a truly distributed and thoroughly networked company with offices in over 100 countries where more than 80,000 professionals deliver products and services to our clients who range from large national to Fortune 500 companies. Our activities are supported by an intense Research and Development effort that uses network technology to unite over 2500 researchers and engineers in 50 centers worldwide. Schlumberger is best known as an oilfield services company (which, contrary to the popular misconception, is itself an extremely technology and computer intensive activity). However, it has also made a significant effort to expand in a variety of high technology endeavors including networks, telecommunications, transportation, finance, the utility and energy industries, IT, and system integration. To accelerate this expansion, Schlumberger has recently acquired Sema, one of the largest IT services companies in Europe, adding to its workforce over 20,000 dedicated IT professionals. We have for years treated problems of large computational complexity and significant (terabytes) of data volumes and we humbly think that we grasp the potential of distributed, networked "grid" computing. We also understand the challenges that arise in effectively programming those systems to address real world applications. To deliver better and faster solutions to our clients, we have always pushed the limits of computing--we were among the first to use Crays and Connection Machines in commercial applications. As the limits between computation and visualization become less and less precise, we are putting our expertise in complex modeling, simulation and visualization, all in 4D, at the service of our customers.

The emerging computational grids offer significant computing resources if we can obtain development environments and programming aids that make these resources usable by the general engineering and scientific community. This is the same challenge that the users of Array Processors, Crays and Thinking Machines had in the past. The commercial success or failure of the computational grids will largely depend on ease of use and availability of friendly development environments--tools that let pluri-disciplinary teams rapidly harness the computational power of the grid without needing Computer Science Ph.D.s.

As I understand your proposal, these are precisely the research challenges that the Center for Grid Application Development Software (CGrADS) will attack. Schlumberger is interested in research that enables effective and efficient use of the emerging networked "grids" by application developers.

Schlumberger has had a strong, long-term relationship with Rice University in geophysics, earth science and chemical engineering. We are currently building and exploring a research relationship in computer science and information technology. I strongly support your research endeavors and will be pleased to be a part of your proposed center. Specifically, it is my intention to support your Center by participation in the Industrial Advisory Board, and by offering Schlumberger support through participation of our engineers (application developers) and IT professionals supporting our internal grid (network-computing) efforts. We would be thrilled to work with CGrADS researchers to test some Schlumberger applications using your research prototype tools and libraries and provide feedback regarding the environment's ease of use and effectiveness. Schlumberger will also entertain specific future sponsored research proposals from you and Rice in this important area.

I strongly support your proposed research program and look forward to our participation. You have created a truly outstanding, strong research team capable of addressing the difficult research challenges of grid computing.

Sincerely,

André Erlich
SchlumbergerSema
Vice President Technology and General Manager