Mr. Marc R. Benioff  
Chairman and CEO Salesforce.com  
Suite 300  
The Landmark@One Market  
San Francisco, CA 94105  

Dear Mr. Benioff:

Again, I want to thank you for your service as co-chair of the President's Information Technology Advisory Committee (PITAC) and your excellent leadership at the April 13, 2004 PITAC meeting. This letter outlines my expectations regarding PITAC’s plans to address issues related to computational science. I look forward to PITAC’s engagement in this issue.

The importance of computational science as a complement to experiment and theory is increasing, with applications that are relevant to numerous Federal agency missions. The Federal Government has funded much of the development of computational science and is a major beneficiary of its use, making it an appropriate area for PITAC to consider. I would like PITAC to address the following questions in the context of the Networking and Information Technology Research and Development (NITRD) program, as well as other relevant federally funded research and development:

1. How well is the Federal Government targeting the right research areas to support and enhance the value of computational science? Are agencies' current priorities appropriate?

2. How well is current Federal funding for computational science appropriately balanced between short term, low risk research and longer term, higher risk research? Within these research arenas, which areas have the greatest promise of contributing to breakthroughs in scientific research and inquiry?

3. How well is current Federal funding balanced between fundamental advances in the underlying techniques of computational science versus the application of computational science to scientific and engineering domains? Which areas have the greatest promise of contributing to breakthroughs in scientific research and inquiry?

4. How well are computational science training and research integrated with the scientific disciplines that are heavily dependent upon them to enhance scientific discovery? How should the integration of research and training among computer science, mathematical science, and the biological and physical sciences best be achieved to assure the effective use of computational science methods and tools?
5. How effectively do Federal agencies coordinate their support for computational science and its applications in order to maintain a balanced and comprehensive research and training portfolio?

6. How well have Federal investments in computational science kept up with changes in the underlying computing environments and the ways in which research is conducted? Examples of these changes might include changes in computer architecture, the advent of distributed computing, the linking of data with simulation, and remote access to experimental facilities.

7. What barriers hinder realizing the highest potential of computational science and how might these be eliminated or mitigated?

Based on the findings of PITAC with regard to these questions, I request that PITAC present any recommendations you deem appropriate that would assist us in strengthening the NITRD program or other computational science research programs of the Federal Government.

In addressing this charge, I ask that you consider the appropriate roles of the Federal Government in computational science research versus those of industry or other private sector entities.

I request that PITAC deliver its response to this charge by February 1, 2005.

Sincerely,

John H. Marburger, III
Director

Letter also sent to: Edward D. Lazowska, Ph.D.