## **President's Information Technology Advisory Committee**

December 30, 1999

The President of the United States
The White House

Chaire: Dear Mr. President:

Co-Chairs:

Raj Reddy Irving Wladawsky-Berger

## Members:

Eric A. Benhamou Vinton Cerf Ching-chih Chen David Cooper Steven D. Dorfman David Dorman Robert Ewald David J. Farber Sherrilynne S. Fuller Hector Garcia-Molina Susan L. Graham James N. Gray W. Daniel Hillis Bill Joy Robert E. Kahn Ken Kennedy John P. Miller David C. Nagel Edward H. Shortliffe Larry Smarr Joe F. Thompson Leslie Vadasz Andrew J. Viterbi Steven J. Wallach

Information technology is increasingly important in ensuring continued economic growth, improving health and the environment, ensuring educational opportunities for all Americans, and in many areas of critical national interest. We are pleased that your administration and the Congress have recognized the essential role public research investment plays in ensuring the pace of invention in information technology does not slow and that the inventions are quickly put to use.

Our February 1999 report, *Information Technology Research: Investing in Our Future*, expressed concern that the nation was not increasing its investment in information technology in proportion to its national importance and pointed specifically to a need for increased funding in basic research. The report recommended increasing information technology research by more than \$1.3 billion over five years in research programs led by NSF but involving strong support from DoD, NIH, DoE, NASA, and other federal agencies. We were asked to review the administration's response to these recommendations, "Information Technology for the Twenty-First Century," that appeared as a part of the administration's FY 2000 budget and strongly supported this excellent beginning. We were also pleased that the Congress supported the bulk of the administration's request. Since we all recognize that this must be a continuing effort, we are pleased to have been asked to undertake a careful examination of the FY2001 budget when our Committee meets at the end of February 2000.

In addition to recommending a broad strategy for supporting information technology research, our 1999 report identified ten "National Challenge Transformations" that outlined a vision for how advances in information technology could benefit the Nation. This year we will look closely at strategies needed to achieve these transformations, starting with three areas: (i) Transforming the Way we Learn, (ii) Transforming the Practice of Health Care, and (iii) Transforming Government. We will conduct these studies with experts from various disciplines and provide specific recommendations on research needs and other policy actions that can accelerate development and use of information technology in these key areas.

We will continue our emphasis on research to better understand the socio-economic impact of the information technology revolution with special attention given to the challenge of the growing "digital divide," the impact of globalization on the workforce, and key policy issues such as privacy, security, and intellectual property rights. We believe addressing these issues is critical to the successful deployment of our information technology vision for the country and will continue our efforts to ensure adequate research investments are made. We also plan to recommend focused research in three other areas: (i) open source software; (ii) international information technology issues; and, (iii) digital libraries.

Conscious of the importance of the task you have given us, we are grateful for your confidence. We look forward to providing advice ensuring that the pace of American innovation in information technologies does not slow and that Americans can benefit from the spectacular opportunities they present.

Raj Reddy Irving Wladawsky-Berger
Co-Chair Co-Chair

O National Coordination Office for Computing, Information, and Communications