Opening Statement By Chairman Bart Gordon

I want to welcome everyone to this morning’s hearing to review the federal, interagency research initiative in networking and information technology, known as the NITRD ["ny-ter D"] program.

Information technology is a major driver of economic growth. It creates high-wage jobs, provides for rapid communication throughout the world, and provides the tools for acquiring knowledge and insight from information. Advances in computing and communications have broad impact. For example, information technology helps to make the workplace more productive, to improve the quality of health care, and to make government more responsive and accessible to the needs of our citizens. In short, networking and information technology is an essential component of U.S. scientific, industrial, and military competitiveness.

Vigorous long-term research is essential for realizing the potential benefits of information technology. Many of the technical advances that led to today’s computers and the Internet resulted from federally sponsored research, in partnership with industry and universities.

The depth and strength of U.S. capabilities in information technology stem in part from the sustained research and development program carried out by federal research agencies under a program codified by the High-Performance Computing Act of 1991. The Science and Technology Committee has a long history of encouragement and support for research on information technologies and played a prominent role in the development and passage of the 1991 Act.

The Act created a multi-agency R&D program to accelerate development of information technology and to attack challenging computational science and engineering problems. Also, it put in place a formal process for planning and budgeting for the activities carried out under what is now known as the NITRD program.

The total budget of the interagency program for Fiscal Year 2008 is $3.3 billion. The agencies providing the largest portions of this funding are the Department of Defense, the National Science Foundation, the Department of Energy, and the National Institutes of Health.

I believe the NITRD program has been largely a success. It has made a substantial contribution to moving computation to an equal place alongside theory and experiment for conducting research in science and engineering.

In addition, it has developed the computing and networking infrastructure needed to support leading edge research and to drive the technology forward for a range of commercial applications that benefit society broadly.

The technical advances that led to today’s computing devices and networks, and the software that drive them, evolved from past research sponsored by industry and government, often in partnership, and conducted by industry, universities, and federal labs.

The President’s Council of Advisors on Science and Technology – the PCAST – recently carried out an assessment of the NITRD program. This assessment raises some significant issues about whether the NITRD program is allocating its resources in ways to achieve the maximum payoffs. PCAST makes a series of recommendations that identify research areas needing additional resources and suggests that...
the modes of research support provided by the program are less than optimum.

In particular, PCAST believes that the NITRD program should provide more of its funding for conducting high-risk/high-reward research and support more large scale, interdisciplinary research projects. It also recommends that the NITRD program institute a strategic planning process to strengthen priority setting under the program. I believe that PCAST raises issues that need to be seriously considered and then addressed, as appropriate, through legislative adjustments to the NITRD authorizing statute. This hearing is the first step in a process, which the Committee will conclude next year.

To assist us in the development of legislation, this hearing provides the opportunity to receive the views of expert witnesses on the findings and recommendations of the PCAST assessment of the NITRD program. I am also interested in any comments or suggestions the witnesses may have on other aspects of the program, not covered by the PCAST assessment, that would lead to a more effective program.

I want to thank our witnesses for their attendance at this hearing and look forward to our discussion.