

Opening Statement

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Ranking Member

Subcommittee on Research & Technology

House Committee on Science, Space, and Technology

Committee Hearing:

Review of the Networking and Information Technology R&D (NITRD) Program

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Thank you Chairwoman Comstock for holding this hearing. I am certainly pleased that we are once again planning to take up reauthorization legislation for the Networking and Information Technology R&D Program – NITRD. The House, through this Committee, has successfully passed a bipartisan reauthorization of the program in each of the past 3 congresses and each time the Senate has failed to follow suit. If we are going to move a bill to the President's desk, each of us in this room will need to work harder on the necessary outreach to gather support. It's been too long since the original High Performance Computing Act of 1991 has been updated with the current state of science and technology in the field, as well as the current operational and management needs of the Program.

Networking and information technology is changing more rapidly than any of us could have dreamed in 1991. Mosaic, the World Wide Web browser that first made the Internet user-friendly, was created at the National Center for Supercomputing Applications at the University of Illinois in 1993, under a project funded thanks in large part to the HPC Act. Netscape founder Marc Andreesson, who was a leader of the Illinois team before launching his company, was quoted as saying, "If it had been left to private industry, it wouldn't have happened, at least, not until years later." Dr. Andreesson's statement is as relevant today as ever. Without question, the

1991 Act set the stage for a coordinated federal R&D strategy that has underpinned U.S. leadership in NIT for the past 25 years.

One reason, I believe, that we have had trouble getting an update through the Senate is that the private sector has not weighed in on the importance of NITRD. I understand that in the process of planning this hearing, there was some difficulty identifying experts in industry at a sufficiently high level with knowledge of the NITRD program. Even the experts that were consulted had a hard time coming up with more names to reach out to. Given that federal investments in NIT R&D have applications across all sectors of our economy, and that at the ground level, NITRD involves many public-private partnerships, I find this troubling.

The NITRD Program is a \$4 billion investment covering every aspect of networking and information technology R&D, in addition to the computing infrastructure required to support R&D in every field of science and engineering. \$4 billion is a large sum by any measure. However, NITRD covers so many areas of R&D and includes so much expensive but essential infrastructure, I fear we may be underinvesting in many critical areas such as cybersecurity.

I want to thank the witnesses for submitting detailed written testimony, and I will highlight just a few topics that I hope we can discuss this morning. In his testimony, Dr. Seidel, the current director of NCSA, discusses the need for more coherence and coordination around computing research infrastructure. When we talk about computing research infrastructure, we mean not just high-performance computing facilities such as Blue Waters, but also big data infrastructure, networking testbeds, observation systems, and more. I'd like to understand better how infrastructure is planned, coordinated, and categorized under the NITRD program, and how the new National Strategic Computing Initiative fits in.

On the topic of education and workforce, we have heard from countless experts that our IT workforce pipeline is not keeping up with the demand. When it comes to education and training, the federal role may be small compared to the state and private sector roles. However, PCAST made some specific recommendations for federal agencies that we may be able to take up in NITRD legislation, so I hope we have the opportunity to discuss those recommendations further.

I look forward to hearing from this morning's expert panel.