Testimony of Philip Wennblom
Director of Standards, Intel Corporation

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Mr. Chairman, Ranking Member Smith, members of the Subcommitte, my name is Philip Wennblom and I am Director of Standards for Intel Corporation. In this capacity, I manage Intel's Corporate Standards Office, that has responsibility for coordinating standards development activity across the company, for setting Intel's standardization policy positions, and for representing Intel in strategic standards development organizations around the world. I am also a member of the Board of Governors of the IEEE Standards Association, a member of the Executive Board of INCITS and chair of the Information Technology Industry Council Standardization Policy Committee. I am honored to appear before this Subcommittee today on behalf of Intel Corporation.

Standards are critical to Intel and Intel has played a leading role in standards development for many years. The importance of standards to Intel can be illustrated by considering four areas of benefit. Intel has found that standards can help create ecosystems of companies that grow new markets – the Universal Serial Bus (USB) is an example. USB allows many types of products, from cameras to cell phones to printers, to connect easily to computers. Intel designs and manufactures complex semiconductor products. By implementing standards in the design of those products, Intel makes them easier for system manufacturers to use – the PCI Express bus is an example. The PCI Express bus is a high performance interface for connecting subsystems, such as graphics, in a broad range of computers. Many standards in the Information Technology industry enable interoperability among products, which is of great value to consumers and businesses. IEEE 802.11, also called WiFi, is a good example of such a standard. A laptop with IEEE 802.11/WiFi can be counted on to work with wireless access points to gain internet access all over the world. Standards enable access to global markets. Intel's products require large investments to develop and the economics of semiconductor manufacturing favors producing them in large volumes. When standards supported by those products are accepted globally, it provides for the most attractive market opportunity.

From an industry perspective, NIST is a very important contributor to standards development in at least three principal ways. First, NIST provides substantial expertise to standards development through the involvement of its experts – some 400 people involved in 100 standards development organizations. I've seen firsthand the contributions that some of those experts make in the international standards area –

technical contributions and leadership that benefit the U.S. government and U.S. industry. NIST has been a reliable partner, developing standards in collaboration with industry for many years.

Second, NIST has proven to be a very capable convener on standards development challenges that are of priority concern to government policy makers and that present a unique need for coordination of public and private sector interests. In those situations, NIST is in a position to facilitate private and public sector collaboration to identify relevant standards, technologies, and operational parameters that support achievement of the government's policy goals and industry and consumer goals of innovation, competition, and interoperability.

The ongoing work at NIST on Smart Grid is a good example of this process at work. Under the Energy Independence and Security Act of 2007, NIST has been assigned the "primary responsibility to coordinate development of a framework that includes protocols and model standards for information management to achieve interoperability of Smart Grid devices and systems" to accelerate national Smart Grid deployments. In this role, NIST has developed a structure (including web portal, organized groups and conferences) that brings together a diverse group of private and public sector technical, standards and market experts in developing the Smart Grid roadmap/framework. I applaud NIST's efforts to partner with other stakeholders in helping to determine the technology and direction of this effort. I expect that NIST will continue to play an important role in facilitating the discussions and ensure the roadmap reflects consensus and supports evolving market innovations for standards and interoperability. Health Care IT and cybersecurity present similar challenges where NIST can play this valuable role.

Third is the role that NIST can and does perform in coordinating discussions on standards within the various agencies of the U.S. government. NIST can be very effective in convening the public sector interests in a priority area, and greater federal coordination can enhance the public-private partnership that is essential to the U.S. standards system. Working with NIST in its role as the enquiry point for World Trade Organization Technical Barriers to Trade Agreement notifications, I have seen the benefit of NIST involvement in sharing information among federal agencies and in coordinating responses on standards issues that impact global trade.

With regard to the proposed realignment of NIST, the changes that Director Gallagher has outlined should make NIST even more efficient and effective. The creation of Associate Director positions should improve the efficiency and stability of the organization, and the directions that Director Gallagher has described for having laboratory programs aligned by mission should make NIST more customer oriented and ultimately more successful. The plans to examine NIST's role in coordination of standards development and policy topics among federal agencies are well considered.

The standardization process in the U.S. relies on a partnership between the stakeholders. This is especially true in areas of collaboration between the government and the private sector. The key guidance for the partnership is found in the National Technology

Transfer and Advancement Act of 1995 and implementing regulations contained in OMB Circular A-119. For international standardization, the private sector, through the American National Standards Institute takes the lead in representing the United States in the International Organization for Standardization and International Electrotechnical Commission. NIST, other federal agencies and the private sector have historically participated cooperatively in the process of developing United States positions and in representing those positions. In my view, that process has worked well and is a key strength of the U.S. system of standardization. It is not in need of major reforms.

In sum, Mr. Chairman, I strongly support the work of NIST and recognize its contributions in the standards arena. I favor Director Gallagher's proposed realignment strategies and believe they would strengthen our standards development process.