Information Technology Industry Council
Leading Policy for the Innovation Economy

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National Institute on Standards and Technology
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Attn: Dr. Ajit Jillavenkatesa

Ref: Standardization feedback for the Subcommittee on Standards

To the Members of the Subcommittee on Standards:

The Information Technology Industry Council, ITI, appreciates the opportunity to respond to some of your questions posed in the Request for Information dated December 8, 2010, regarding the benefits of standardization and issues that may be considered during the standards-setting process. We would welcome the chance to meet with the Subcommittee as appropriate to provide greater details regarding these comments.

ITI is the leading voice, advocate and thought leader for the U.S. information and communications technology (ICT) industry. Our members are global leaders in innovation from all sectors of the digital economy − hardware, software, services and the Internet − and are strong advocates of a global, harmonized, consensus-based ICT standardization system that is market-driven and private sector-led.

While ITI's views are set forth in more detail below, ITI would like to offer the following overall observations and recommendations for the Subcommittee's consideration:

- **Public/Private Partnership**: ITI values the public/private partnership that exists today with regard to ICT standardization. This balance, as reflected in the National Technology Transfer and Advancement Act, Pub. L. 104-113 (1995) ("NTTAA"), and OMB Circular A-119 has been effective in supporting a dynamic and diverse ICT standards ecosystem that has benefitted industry and supported US global competitiveness. We encourage the US Government to continue its support for the framework and principles currently articulated in the NTTAA and OMB Circular A-119.

- **Diversity of ICT Standards and Standardization:** ITI encourages the US Government to embrace a variety of ICT standards and standards-setting processes, and avoid policy

decisions that might discourage a broad diversity of approaches to ICT standardization. This diversity provides for choice, competition and flexibility that further enable the ICT sector to respond to a rapidly changing marketplace with new, innovative solutions.

- **IPR in Standards**: There also is tremendous diversity with regard to standards bodies' policies addressing the inclusion of patented technology in ICT standards. This diversity is healthy and should be encouraged, and any articulation of preferred approaches should be avoided.

- **Global Standards**: ITI members must be able to compete in global markets and address global supply chains. We encourage the US Government to advocate practices for governments worldwide that rely on consensus-based, market-led, voluntary global standards and avoid promulgating and mandating conflicting country-specific standards.

- **Use of Standards in Technology Regulations**: Given the dynamic nature of innovation and ICT standards development, governments should be cautious about mandating adherence to any particular standard without demonstrating sufficient need and without support from the impacted industry and relevant stakeholders, because mandated standards can divert normal marketplace outcomes and stifle innovation. If it is necessary to mandate adherence to an ICT standard, the government should look to standards that have been widely implemented in the marketplace as they have some level of demonstrated effectiveness and acceptance.

- **US Government Support and Advocacy:** The US Government has been a strong advocate of the current ICT standardization ecosystem and many of the points articulated herein. ITI values this ongoing support and appreciates the US Government's related international advocacy.

- **US Government Participation in Standardization:** As reflected in the NTTAA and OMB Circular A-119, the US Government is a very important stakeholder in the standards community. US Government technical experts should be adequately resourced so that they can participate in standards-setting activities and contribute their views and expertise.

- **US Government Role**: ITI notes that there may be some cases where an additional government role is justified - when there is a compelling public interest (*e.g.*, health, safety and the environment) and markets have failed. Such situations are rare. In such limited circumstances, it may be appropriate for the US Government to facilitate an appropriate process and outcome that leads to the successful integration of standards. When these situations arise, the US Government should use a process that:

    - Includes all stakeholder interests
    - Articulates agreed-upon use cases
    - Seeks to leverage well-established and broadly implemented standards, and

- Does not mandate conformance to such standards.

1. Standards-Setting Processes, Reasons for Participation and the Benefits of Standardization

Voluntary, consensus standards are important to the information and communications technology (ICT) sector. We believe that standards can help:

- Create value and aggregate markets
- Facilitate technology diffusion
- Promote production efficiency and product interoperability
- Enhance competition
- Promote innovation
- Stimulate investment and economic growth
- Promote network security
- Reduce costs
- For some regulatory and trade issues, they may serve as a single, global reference

ICT facilitates an innovative and flexible global infrastructure of integrated networks and related practices. Enterprises of all sizes are accessing global markets with ICT offerings and managing critical operations in ways that previously were geographically constrained. From communication links in healthcare to supply chains and transportation systems, these ICT offerings must be inter-connected. Because these businesses operate globally, their preference is for ICT offerings that utilize global standards over national or regional standards.

ITI believes the decentralized, voluntary, market-driven standardization system which has brought us to this point is one which can carry us into a globally connected future with equal or increased productivity, capability and competitiveness. The current process is actually a dynamic system that evolves in response to the needs of industry and other stakeholders. The US ICT industry has experienced continuous growth in productivity and innovation over the past four decades and the beneficial impact of ICT on virtually all sectors of the U.S. economy and every aspect of society has been even greater. This growth could not have been achieved without the voluntary collaboration of private industry stakeholders in partnership with government in the development of globally relevant ICT standards.[1]

Moreover, the rate of ICT growth and innovation requires a system of standardization which utilizes consortia and other standards-setting organizations in addition to ISO, IEC and ITU.

[1] ITI has attached to its comments two case studies evidencing the effectiveness of this private-public collaboration: one relating to a data format standard for the interchange of biometric information and the other enabling disaster warning-receiving capability on radios, television, phones and other similar devices.

This diversity, which has evolved over the past few decades to meet government, industry and market needs, provides the ICT industry with flexibility and agility to choose among many venues. Diversity supports the marketplace with competition and choice as to what works best. As a result, multiple bodies and organizations develop numerous voluntary standards to serve various stakeholder groups. In this manner, customers are able to select from multiple products and solutions using different standards that best meet their needs. Today, ICT is the foundation of a global marketplace, global communities, and global economic interdependence fostered by adoption of global standards.

Global ICT standards share three important characteristics:

- They respond broadly to the needs of global markets.
- They demonstrate relevance through voluntary worldwide adoption and implementation.
- They are products of standardization processes that are consensus-based, transparent, and industry-led with participation open to all materially affected parties.

ITI believes that the basic principles forming the U.S. Standards Strategy remain sound, relevant and essential to both U.S. competitiveness and global cooperation. These principles include:

- Market-led
- Sector-specific
- Voluntary, consensus-based, performance-based
- Balanced, flexible IPR policies
- Government as consumer, partner and participant

The world continues to change, and the best systems evolve organically to meet new requirements. Within the framework of the principles above, the role of government as a partner has become increasingly important to the continued success of ICT industry standards.

In all industries, standards are important tools for interoperability, production efficiency and global deployment. Throughout the ICT sector, voluntary standards are important and pervasive. They are used in hardware, software, and communications, and, though convergence has blurred the distinction, developers continue to advance the necessary standards in the most appropriate venue. Voluntary standards remain the foundations of the Internet and e-commerce. While industry business models may differ, which can influence how companies view standards issues, the development of technically sound, interoperable standards through existing, constantly adapting standards processes remain important for the ICT industry as a whole.

2. Intellectual Property Rights Considerations

There has been much discussion and debate recently over the role of Intellectual Property (IP) in ICT standards and the nexus of standards, IP and innovation in the ICT industry. There is a wide

range of views on how IP should be handled in the standards development process and individual standards development organizations (SDOs) have a variety of patent policies and procedures. Depending on a number of factors, including strategic and commercial concerns, companies have differing positions on how IP should be handled in SDOs and the standardization process – there is no singular industry position.

Standards drive growth:

- Standards can help establish the infrastructure for competing products to interoperate.
- Standards can simplify development by defining a minimum set of common requirements.
- Standards can enable new business opportunities and new markets.
- Standards can allow innovation on top of common specifications.

Standards development processes respect IPR. The ICT industry recognizes the need for standards that address the global marketplace through open processes that include multiple stakeholders. Existing successful global standards development organizations (both *de jure* and consortia) have developed multiple frameworks for addressing IPR concerns. While patent owners may need to consider which body best meets their needs, the standards development processes of effective SDOs are based on recognized principles including:

- Transparent, global, industry-led, consensus-based process, with open participation, resulting in voluntary standards
- Clearly defined technical scope and objectives
- IPR policies that balance the needs of patent owners and those of implementers and other stakeholders
- IPR policies that typically seek to establish commitments from patent holders that they will license to all implementers of the standard on reasonable and non-discriminatory terms and conditions (whether for free or for a reasonable fee)
- Formal procedures that address the early disclosure of essential patents known by standards participants; however, standards bodies should not require patent holders to conduct searches of their patent portfolios.

Innovation is the lifeblood of the ICT industry. Innovation produces intellectual property and the protection of IP can provide a valuable incentive for continued innovation. In some cases inclusion of IP in standards may be necessary to provide the best solution given market requirements. Global standards development processes should seek to strike a balance among various stakeholders, while taking into account marketplace needs and incentives to innovate.

3. Standards and Technical Regulations

ITI greatly values the public and private sector partnership that has resulted in strong U.S. competitiveness in the standardization environment. ITI believes that the government should further partner with the industry to ensure continued market access by:

- Supporting and promoting global cooperation and harmonization of standards in such areas as public health, safety and the environment.
- Increasing participation in the development of technical standards domestically and internationally as an ICT consumer through its technical experts; and,
- Promoting the "multiple paths" approach to the development of international standards.

Voluntary standards are completely market- and consumer-driven. What makes a standard voluntary is that it is developed by stakeholders − sometimes including the government and regulatory bodies − and its use is completely optional. Under certain circumstances, voluntary standards can become required by government regulation.

The development and use of voluntary standards contribute to creating and expanding ICT markets, and help to maximize benefits to societies, consumers, and companies. Industry responds to the marketplace and consumers as the ultimate arbiters when it is developing and using voluntary standards.

ITI has observed the problems that can result when a country establishes mandatory technical requirements, by law or by regulation, by referencing a standard that is not internationally accepted. We appreciate the U.S. government's efforts to address these problems through international and bilateral trade resolution channels, such as the results of the recent US/China JCCT discussions.

Governments may reference standards as the basis for technical regulations. This is appropriate under certain, limited circumstances. Standards referenced in regulations applicable to the ICT sector have been increasing globally over the past decade. Examples include standards that are referenced in national regulations, such as product safety (e.g. IEC 60950) and electromagnetic interference (EMI) (e.g. IEC CISPR 22). They also include standards referenced in regional regulations (e.g. European Union's EMC directive and IEC 61000-3-2, 61000-3-3).

With voluntary standards intended for use in regulations, it is critical for industry to focus on the content of the standard, its development process and the breadth of its adoption. More specifically, industry supports reference to those standards that meet the tests of real usage (*e.g.*, responsive to the real-world, performance-based, technically sound). Additionally, standards considered for use in regulations should be developed through a process that is both open and global. Ultimately, industry seeks to provide market and customer value through a technologically neutral, level-playing field when standards are referenced in regulations.

Governments create technical regulations by mandating technical requirements. This may include procedures for testing, conformity assessment, and ongoing compliance. These requirements may embrace internationally recognized procedures or they may be unique to a country or region. Technical regulations can limit manufacturing flexibility, inhibit innovation, delay time to market, and distort product design.

They can limit market choice and slow consumer price reductions. They can force companies to spend resources complying with procedural requirements that satisfy no real world need and add no value to products. They can obscure legitimate regulatory requirements and widen the gap to enabling technology.

ITI's view is that the objectives for technical regulations should be to ensure safe and legal products. Technical regulations should never be more trade-restrictive than necessary and governments should consider alternatives whenever possible. If technical regulations are necessary, governments should fairly consider the costs and time to-market delays associated with implementation and enforcement. ITI supports a simple "design once – test once – single conformity assessment" global system rather than closed regulations with redundant procedures, market delays, and unwarranted costs.

When standards are intended to be the basis for technical regulations, ITI advocates that they be developed in an open and balanced process to ensure that they are performance-based, technologically-neutral, technically sound and widely implemented.

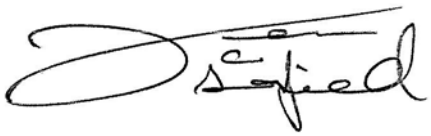
- Participation is **OPEN** globally to all interested parties from both the private and public sectors. **BALANCE** is sought among all interested parties.
- Standards are **PERFORMANCE-BASED**, specifying essential characteristics not detailed designs or the means to achieve essential characteristics.
- Standards are **TECHNOLOGICALLY-NEUTRAL** with respect to market access by refraining from choosing a "technology winner" or an implementation method.
- Standards are **TECHNICALLY SOUND** and useful to consumers, industries, and governments on a global basis.
- The mandated elements of standards are tested to ensure they can be **IMPLEMENTED**.

ITI also notes the U.S. Government reliance on voluntary consensus standards is an important part of the standardization approach in the U.S. The NTTAA promotes the use of voluntary consensus standards for both regulatory and procurement activities. The NTTAA is further implemented through OMB Circular A-119, which provides that "all federal agencies must use voluntary consensus standards in lieu of government-unique standards in their procurement and regulatory activities, except where inconsistent with law or otherwise impractical" has been beneficial to both government and industry. "Voluntary consensus standards" are defined in the Circular as being developed in an open, consensus process and supported by an intellectual property rights policy.

The Act and the Circular encourage the participation of federal representatives in standards bodies to increase the likelihood that the standards they develop will meet both public and private sector needs. Increased government participation in the voluntary consensus standards process would be helpful, especially in areas where government has indicated that the development of standards could be supportive of public interest. Close interaction and cooperation between the public and private sectors is critical to developing and using standards that serve national needs and support innovation, competitiveness and economic growth. The continued strength of the U.S. standardization system depends upon the ongoing effective cooperation of government and industry which has been supported by NTTAA and OMB A-119.

ITI would welcome the opportunity to provide additional information or to respond to any questions that you many have. Thank you for your consideration.

Sincerely,



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