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TESTIMONY:

Response of Andrew Updegrove to Request for Comments

Federal Participation in the Development and Use of Voluntary Consensus
Standards and in Conformity Assessment Activities
Office of Management and Budget

April 30, 2012

Thank you for the opportunity to comment on the *Federal Register* notice submitted by the Office of Management and Budget (OMB) regarding whether and how to supplement OMB Circular A-119, "Federal Participation in the Development and Use of Voluntary Consensus Standards and in Conformity Assessment Activities" (Circular).

I am a partner in the Boston law firm of Gesmer Updegrove LLP. Over the last 24 years, I have represented more than 100 non-profit membership organizations that develop and/or promote standards. While some of these standard setting organizations (SSOs) have been accredited by the American National Standards Institute (ANSI), the great majority have been formed to attract participation by relevant stakeholders on a global basis. Most commonly, such organizations are referred to as 'consortia.'

Focus: The Role of Consortia

The primary focus of this response will be on consortia. My remarks will address the degree to which the standards output and supporting activities of these voluntary, consensus-based organizations has become essential to the existence and further advancement of information and communications technology (ICT) since the Circular was promulgated in 1998, and the ways in which guidance under the Circular should be updated in order to maximize the benefits anticipated by Congress when it enacted the Technology Transfer and Advancement Act of 1995 (NTTAA).

My central premise will be that it is essential that the vital role played by consortia in the ICT sector be recognized and that, to the extent that any additional guidance or supplemental advice is provided by OMB, that such guidance and advice should serve to encourage rather than hamper uptake of consortium-developed standards, and to require the participation by federal government personnel in consortium developmental and other activities to the same extent as in those of traditional SSOs.

Background

In almost all cases, the standards that consortia have been formed to develop, promote, and/or otherwise support serve the ICT industries. Over the last thirty years, nearly 1,000

of these organizations have been created, and together the tens of thousands of standards they have developed address the needs of virtually every niche of ICT.¹ Indeed, for most of that period the information technology industry has looked preferentially to consortia for new standards, utilizing either already existing consortia or launching new ones to meet its needs. To a lesser, but still very significant extent, this has been true in the communications technology sector as well.

One reason that industry has looked so heavily to consortia, as compared to traditional standards organizations, is that new ones can be set up so easily and quickly (it is rare that a week goes by without at least one standards-focused consortium being announced, and often several are launched). While each new consortium is likely to be similar in many ways to those already in existence, its purpose will usually be unique, and its focus will typically be precisely defined. By forming a new organization rather than taking a new project to an existing SSO, the founders can deploy 100% of their resources towards rapidly achieving whatever standards-related goal they have joined forces to achieve.

In almost every case, the new organization will be charged not only with developing a new standard or suite of related standards as quickly as possible, but the founders will underwrite whatever additional activities are needed to achieve their goals. Those activities typically include many of the following activities: collaboration on joint marketing and education activities; sponsoring research; registering distinctive trademarks and launching certification testing programs; holding meetings and speaking at tradeshow and other venues; and coordinating with other consortia and traditional SSOs to increase synergies of results and lower the likelihood of needless duplication of efforts.

Once launched, the great majority of consortia follow one of a few tracks:

- Where they are very narrowly focused (i.e. on a single standard, or a few closely related standards), they will eventually go out of existence when the need for further extensions to their standard(s) has passed. At that time, the standards and other intellectual property of the consortium will usually be transitioned to another consortium or traditional SSO.
- Where they are more broadly focused (e.g., on an area of technology or type of product, service or application), they will continue to launch new working groups for as long as the need for activity in that area sustains.
- Where they become widely recognized for their value, they often become recognized as institutions to be sustained over the long term, taking their place among the globally recognized sources of excellence and leadership in standards development.

There are many examples of consortia that demonstrate each of these life cycles.

Consortia also vary widely in the rules relating to intellectual property rights (IPR) they adopt. In many areas (e.g., consumer electronics and telephony), the commitments that members are expected to make are similar to those required in traditional SSOs: i.e., each participant must agree that if a standard it helps develop will infringe a patent claim owned by it (a 'Necessary Claim'), it will either agree to license that claim on reasonable and non-discriminatory (RAND) terms to everyone that wishes to implement the standard, or it will disclose the Necessary Claim, and the portion of the standard that would need to be modified to avoid infringement.

¹ What I believe to be the most complete list of ICT SSOs (both traditional and consortia) in existence may be found at a Web site I maintain, called ConsortiumInfo.org. That list can be found here: <http://www.consortiuminfo.org/links/index.php#categories>.

But in other areas of endeavor (e.g., Internet and Web standards), consortia often adopt stricter rules, requiring those that participate in developing a standard to forego the right to charge a royalty or other compensation for the right to practice a Necessary Claim.

This ability to set the particular IPR rules that a group of founders believe to be best suited to achieving the goal at hand provides another reason for forming new consortia, since it avoids the need to agree to the type of 'lowest common denominator' IPR Policy that an organization with scores of active working groups might otherwise find it necessary to maintain.

Consortia differ in other important respects, including rights of participation. The great majority of consortia exhibit levels of 'openness' that are equal to, and which sometimes exceed, those of traditional SSOs. A small percentage, however, operate in a more restricted fashion. These organizations (often referred to as 'Special Interest Groups,' or SIGS) are particularly common in technical areas characterized by 'patent thickets,' and offer a way for those companies with the heaviest concentrations of technology in the subject area to negotiate what amounts to a mutual cross license arrangement that allows third party implementations without the need to negotiate licenses with multiple patent owners.

Some of these very narrowly focused collaborations operate on a 'by invitation only' basis, although those participants that own patents underlying the resulting standard still commit to license their Necessary Claims on RAND terms to anyone desiring to implement the resulting standard.

These and other differences among consortia illustrate the benefits of this extremely flexible and organic approach to standards development. In large part, it is this ability to tailor structure, process, IPR policies and work plans that helps explain why this approach to standards development has proven to be so popular in the extremely competitive, fast moving, and patent-thick arena of ICT.

National Interest

Ensuring that the federal agencies give equal priority to both utilizing and helping develop consortium-developed standards is essential for a number of reasons central to the national interest.

First and foremost, ICT standards 'want' to be global standards. Not only is the benefit of universally implemented standards demonstrable given the portability of electronic devices and the global sharing of data and services, but the Agreement on Technical Barriers to Trade² to which members of the World Trade Organization are signatory prohibits those nations from unjustifiably mandating compliance with local standards in preference to equivalent global standards in order to set up barriers to free trade. Where a common standard is used everywhere, trade can follow as well.

This default to global standards means that the federal agencies will have little real option but to specify implementation of a given consortium standard in procurement once the global marketplace has decided to implement it. To do otherwise would raise costs of procurement, deprive the federal purchaser of the benefits of the ongoing innovation in the marketplace that develops around a global standard, and, in many cases, make it difficult and burdensome to communicate and interact with the world beyond the agency's own network. This would be a particularly inappropriate situation where interaction with the American public is involved.

² Also sometimes referred to as the [Uruguay Round Agreement](http://www.wto.org/english/docs_e/legal_e/17-tbt_e.htm), available at: http://www.wto.org/english/docs_e/legal_e/17-tbt_e.htm.

There is an important, indirect reason for the federal agencies and regulators to support consortium standards as well. The formation of standards consortia has been almost exclusively led by U.S. multinational corporations. While most consortia actively recruit foreign as well as domestic corporations and other types of stakeholders (e.g., U.S. and foreign universities, non-profits and national, state and local governmental bodies, depending on the technical focus and business goals of the consortium), only a small number of consortia have been formed by foreign interests.

Because standards are so effective at enabling new technologies, products and services, being able to set a standards agenda can provide great advantages to those vendors that define the scope of a new SSO and then direct its strategy. This is because those vendors then enjoy a 'first mover' advantage in the marketplace, and also because the standards that they choose to create will typically build upon technology they have already developed (and frequently patented).

Similarly, matters of great national policy importance are heavily dependent on consortium-developed standards for achievement. To give but a few examples, the SmartGrid, electronic health records, cybersecurity, first responder capabilities, privacy, open government, and cloud computing all rely extensively on consortium developed standards, often to a greater extent than those produced by traditional SSOs.

Definition of 'Voluntary Consensus Standards Bodies'

As noted above, consortia differ widely in the composition of their membership, the rules they adopt (procedural, with respect to IPR, and otherwise), and the degree of respect that their output earns in the marketplace. Over the years, 'best practices' for consortia formation, governance and technical process have continued to evolve, reflecting market needs and perceptions, including with respect to values such as transparency, accessibility to relevant stakeholders, due process and consensus.

In order to be successful, a consortium must be able to attract sufficient participation by relevant stakeholders to create valuable standards, and sufficient uptake of its standards by non-members as well as members. These results are unlikely to be achieved unless the consortium has met market expectations of fairness, openness, accessibility, and transparency.

However, the Circular includes a specific set of criteria for defining what are referred to as "voluntary consensus standards bodies," some of which are general, while others are quite specific. The attributes defining such an SSO are stated to be as follows:

- (i) Openness.
- (ii) Balance of interest.
- (iii) Due process.
- (iv) An Appeals Process.
- (v) Consensus, which is defined as general agreement, but not necessarily unanimity and includes a process for attempting to resolve objections by interested parties, as long as all comments have been fairly considered, each objector is advised of the disposition of his or her objection(s) and the reasons why, and the consensus body members are given an opportunity to change their votes after reviewing the comments.

While this definition sets out a very suitable set of attributes for creating standards worthy of agency consideration, it does not describe the only appropriate regime under which standards can be developed that are responsive to the needs, and which fairly reflect the input, of interested stakeholders. Attributes (iv) and (v), for example, are both specific as well as absent in a wide variety of very well respected consortia that have pursued different rules and processes in pursuit of similar goals.³

Because the Circular defines 'voluntary, consensus standards' as standards "developed or adopted by voluntary consensus standards bodies," other sections of the Circular are restrictively impacted as well.

Does this matter? It is true that the introduction to the Circular states that:

[t]hese policies do not create the bases for discrimination in agency procurement or regulatory activities among standards developed in the private sector, whether or not they are developed by voluntary consensus standards bodies.⁴

On the other hand, Circular Item 7 states that:

[a]gencies must consult with voluntary consensus standards bodies, both domestic and international, and must participate with such bodies in the development of voluntary consensus standards when consultation and participation is in the public interest and is compatible with their missions, authorities, priorities, and budget resources.

Similarly, Item 9.a. only requires reporting with respect to voluntary, consensus body standards. In these cases (at least), the Circular does discriminate between those SSOs that meet the somewhat arbitrary and restrictive Circular definition of a voluntary, consensus standards body and those that do not.

Unfortunately, it is difficult to tell whether these are the only cases where such discrimination is intended. For example, there are numerous examples of statements mandating use of voluntary consensus standards, without mentioning that consortium standards represent equally acceptable alternatives.⁵ Does this mean that in any given instance non-voluntary, consensus body standards were consciously excluded from the statement, or simply that a 'shorthand' reference was used? And how is the reader supposed to be able to tell what the intention is in a given case, given that it is clear (from other statements, e.g., in Items 9.1 and 6.g) that in some cases only the narrow definition is intended?

³ For example, in many consortia the Board of Directors or a lower level committee will review whether a given working group process has worked appropriately from a due process point of view before recommending a draft standard for adoption, and take appropriate action if this is found not to be the case. But would this practice satisfy the definition as an "appeals process?" Similarly, while traditional SSOs require "no" votes to include reasons for a negative vote, with each such reason then being addressed, in writing, and reported back to the committee, most ICT consortia view these extra steps as being more burdensome than beneficial, and in any event unacceptably time consuming. Instead, opinions are expressed – often vigorously – in advance, after which an up or down vote is taken. The result is no less democratic, and helps serve the goal of rapid deployment of standards in a fast-moving, competitive environment.

⁴ Circular, Item 1. Certain other references are consistent. For example, Item 6.g. repeats the same dictum, and acknowledges that other standards can be referenced in regulations and used in procurement, although these actions need not be reported.

⁵ See, for example, Items 6 ("All federal agencies must use voluntary consensus standards in lieu of government-unique standards . . .") and 6.1.: ("Your agency must use voluntary consensus standards. . .").

Not surprisingly, this writer is aware of situations in which private sector representatives favoring a standard developed by a traditional SSO have misrepresented to Federal personnel that, in fact, only standards developed by such an organization should be used in procurement, rather than a rival standard developed by a consortium.

The inclusion of this very specific, somewhat arbitrary definition of a voluntary, consensus body standard has had unfortunate effects outside the Act and the Circular as well. For example, when the National Cooperative Research and Production Act was amended in 2004⁶ to provide specific protection for SSOs, Congress opted to restrict this extended protection to SSOs that meet the Circular's definition of a voluntary, consensus standards body.

In doing so, Congress likely excluded the vast majority of the consortia that have created untold thousands of the standards upon which our modern, ITC-based economy is based, and which have proven to be a boon to the competitiveness of U.S. industry, simply because their own internal rules did not conform to the specific requirements relating to appeals and consensus that the Circular chose to approve.

It is strongly to be recommended that if the Circular is amended, that the language quoted above should be modified to indicate that attributes such as those enumerated are typical of, but do not exclusively define, a 'voluntary, consensus standards body.' Similarly, it should be made clear that participation by government representatives, and reporting under the Act, should extend to consortia and consortium-developed standards as well.

Otherwise, the Circular will serve to discourage and penalize SSOs from adopting those rule sets that are most appropriate to modern realities, will undercut Congress's purpose in adopting the NTTAA, and will deprive Congress of important information regarding Agency involvement in national and international standards development activities and uptake of non-government unique standards.

Criteria for Referencing

As noted earlier, some consortia are more open than others. In its current form, the Circular notes criteria that some of these consortia (e.g., those that have adopted 'by invitation only' rules of participation) would not meet. As currently written, the Circular rightly permits standards developed by such organizations to be utilized by the federal agencies where appropriate. It is important that this flexibility be maintained in the area of ICT standards for the reasons given above – there may simply be no practical alternative where the marketplace has already chosen to uniformly implement a standard developed by such an organization.

However, there are other areas in which giving preference to standards developed by SSOs (consortia or traditional standards organizations) that meet certain minimum process and other standards may be appropriate, in order to achieve policy goals as compared to simply serving the technology-neutral demands of government procurement. In Item 6.f., the Circular specifically acknowledges that Federal agencies not only may, but should, take into account additional criteria in making standards-related decisions, stating in part:

When considering using a standard, your agency should take full account of the effect of using the standard on the economy, and of applicable

⁶ The National Cooperative Production Amendments of 1993, Pub. L. No. 103-42, amended the National Cooperative Research Act of 1984, Pub. L. No. 98-462, renamed it the National Cooperative Research and Production Act of 1993, and extended its provisions to joint ventures for production. The Standards Development Organization Advancement Act of 2004, Pub. L. No. 108-237, extended the provisions of the NCRPA to standards development organizations.

federal laws and policies, including laws and regulations relating to antitrust, national security, small business, product safety, environment, metrication, technology development, and conflicts of interest. Your agency should also recognize that use of standards, if improperly conducted, can suppress free and fair competition; impede innovation and technical progress; exclude safer or less expensive products; or otherwise adversely affect trade, commerce, health, or safety

An important and timely example of an area in which such additional criteria should be taken into account involves the use of standards essential to the interaction between governments and citizens, and to the exercise by citizens of their constitutional rights.

The American experience of the last two centuries has demonstrated the need for constant vigilance in order to ensure that the unfettered exercise of constitutional rights remains available to all citizens. These rights include those of assembly, freedom of speech, voting, access to public representatives, and more. But today, each of these rights is increasingly exercised on the Internet rather than in person. Indeed, for budgetary and other reasons, national, state and local government bodies are pushing more and more of their interactions out of courthouses and onto the Web.

Unless all citizens have the same access to government-provided services, venues of expression, and information, they will be just as effectively disenfranchised as if they were barred from entering a courthouse. But unless governmental decision makers ensure that these services are accessible by all, regardless of their disabilities and the technology they can afford, citizens, and particularly those who are poor or disabled, will be so disenfranchised.

For this reason, I have previously proposed the recognition of what I call 'Civil ICT Rights.'⁷ I introduced the role that standards play in guaranteeing Civil ICT Rights as follows:

Much as a constitution or bill of rights establishes and balances the basic rights of an individual in civil society, standards codify the points where proprietary technologies touch each other, and where the passage of information is negotiated.

In this way, standards can protect — or not — the rights of the individual to fully participate in the highly technical environment into which the world is now evolving. Among other rights, standards can guarantee:

1. That any citizen can use any product or service, proprietary or open, that she desires when interacting with her government.
2. That any citizen can use any product or service when interacting with any other citizen, and to exercise every civil right.
3. That any entrepreneur can have equal access to marketplace opportunities at the technical, standards-mediated level, independent of the market power of existing incumbents.
4. That any person, advantaged or disadvantaged, and anywhere in the world, can have equal access to the Internet and the Web in the most available and inexpensive method possible.

⁷ Updegrave, Andrew, "[A Proposal to Recognize "Civil ICT Rights,"](http://www.consortiuminfo.org/bulletins/feb08.php#feature) Consortium Standards Bulletin, Vol VII, No. 2, February – March 2008, at: <http://www.consortiuminfo.org/bulletins/feb08.php#feature>

5. That any owner of data can have the freedom to create, store, and move that data anywhere, any time, throughout her lifetime, without risk of capture, abandonment or loss due to dependence upon a single vendor.

Since I wrote that article, the number of public-facing government initiatives launched on-line has dramatically increased. But while much progress has been made at the federal level to ensure that on-line services will be both secure as well as user-friendly, only limited attention has been paid to whether every citizen can access those services, regardless of what technology they can afford, what technology they are capable of using, and whether or not government technology decisions arbitrarily limit the choices that every citizen, regardless of income or ability, can make when selecting ICT goods and services.

For these reasons, I would suggest that decisions relating to standards that are integral to government-citizen interaction – what one might reasonably refer to as ‘Civil ICT Standards’ – be made in a different manner. I identified those standards as follows:

Standards in this class today comprise only a small, but vitally significant percentage of all standards. But they demand special attention in their selection and protection in their use, because their impact is both fundamental and far reaching. And, since some standards (like document formats) are intended for very long-term use, it is more than usually important to select them carefully.

A number of existing Civil ICT Standards can already be readily identified. By way of example, they include those that enable universal global access in native character sets (the Unicode) and the basic standards upon which the Internet and the Web are based. In the future, Civil ICT Standards will include those that relate to health records, privacy, security, electronic voting, federated identity, and much more. Over time, they will become both more numerous as well as more important.

In the case of standards such as these, setting a higher bar in terms of process (e.g., guaranteeing broad stakeholder access, ensuring transparency to non-participants, preventing lock-in to a single technology platform, and avoiding unnecessarily high costs of acquisition) would be important. Moreover, in a limited number of cases, employing the ‘soft’ power of public procurement could also provide opportunities and incentives to bring new competition into areas of the marketplace that have become dominated by a single vendor or service provider, providing lower costs, more competition, and richer consumer choices.

Summary

It is welcome and appropriate that comments have been solicited relating to whether and how any new guidance should be given under the Circular should refer to consortia. Since the date of the Circular’s promulgation, the role of consortia, and the standards they develop, has continued to expand rapidly in the area of ICT (indeed, they are beginning to be found in other areas, such as pharmaceuticals, as well). In particular, the importance of ICT, and in particular the Internet and the Web, to both the public and private sectors has increased by orders of magnitude.

At the same time, the importance of U.S. ICT producers and service providers to the economy and to the nation’s competitiveness in international trade continues to grow apace. The predominant role played by U.S. companies in forming consortia has played no small role in ensuring the continuation of this trend.

For these reasons, it is essential that Federal purchasers and regulators remain agnostic as to the source of ICT standards in the great majority of cases, and that federal agency personnel give equal priority to participating in and supporting consortia. Congress should also receive timely information with respect to federal involvement in the development and implementation of consortium standards.

At the same time, a distinction should be drawn between those standards whose origins have no relevancy to the exercise of Civil ICT Rights and those that do. In the latter case, I would suggest that any additional guidance should at minimum recognize the appropriateness of considering whether the selection of a given Civil ICT Standards would serve, neglect, or even prejudice, the exercise of an important Constitutional right.

I thank you for the opportunity to provide these comments, and look forward to the further dialogue that will be hosted on these important issues.

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