



December 18, 2023

National Institute of Standards and Technology  
US Department of Commerce  
100 Bureau Drive  
Gaithersburg, MD 20899  
Attn: Alicia Chambers, NIST Executive Secretariat

*Implementation of the US National Standards Strategy for Critical and Emerging Technology*

BSA | The Software Alliance makes the following submission in response to the National Institute of Standards and Technology (NIST) request for information (RFI) regarding the development of an implementation plan for a USG National Standards Strategy for Critical and Emerging Technology (USG NSSCET).

NIST's RFI states that it:

- Supports standards development activities in accordance with the World Trade Organization (WTO) Technical Barriers to Trade Committee Decision that articulates important standardization principles including transparency, openness, impartiality and consensus, effectiveness, relevance, and coherence.
- Seeks input on how to best partner with relevant stakeholders and engage in key activities that will optimize the implementation of the USG NSSCET and further enhance the U.S. Government's ability to support a private sector-led, open, consensus-based international standards system.

BSA members face a growing challenge stemming from discriminatory and/or non-transparent standardization processes affecting digital products, services and technologies – particularly in national standards-setting processes that produce outcomes with which compliance becomes mandatory, e.g., as a condition of marketing a product or service in the national market. This is why NIST's commitment to open, inclusive, industry-led, and consensus-based international standards development processes is so important, as reflected previously in [BSA's 2021 Submissions to NIST](#) and BSA's [2023 Recommendations](#) regarding international disciplines relating to standards and technical barriers to trade.

**I. Background**

NIST's RFI states that the:

USG NSSCET is intended to ... build upon a wide variety of processes that are open, voluntary, decentralized, and led by the private sector. These processes feature openness to participation by materially interested stakeholders with consensus-based decision making. Finalized standards are primarily published by private sector standards organizations, not the US Government. The US Government supports

standards development activities in accordance with the WTO Technical Barriers to Trade Committee decision that articulates principles including transparency, openness, impartiality and consensus, effectiveness, relevance, and coherence. To inform the USG NSSCET implementation, including how to best partner with relevant stakeholders, NIST is requesting information that will support the identification and prioritization of key activities that will optimize the USG NSSCET implementation and further enhance the US Government's ability to support a private sector-led, open, consensus-based international standards system. In addition to other agencies and Departments, bureaus across the U.S. Department of Commerce are involved in the USG NSSCET. They include the International Trade Administration (ITA), the Bureau of Industry and Security (BIS), the U.S. Patent and Trademark Office (USPTO), and the National Telecommunications and Information Administration (NTIA).

BSA observes that, in the area of technical regulations and standards-setting, digital fragmentation has become a pervasive threat, undermining the cross-border technology ecosystem that has engendered economic opportunities at home and abroad. This fragmentation has created an urgent need to update the standards-related rulebook for critical and emerging technologies, as countries increasingly move in the direction of mandatory, often mutually inconsistent, national standards and technical regulations that create barriers to trade and technological progress across jurisdictions.

These recent trends are a regrettable departure from the positive role of international, voluntary, industry-driven standards, which had hitherto informed policymakers' development of interoperable technical regulatory requirements for goods, while international conformity assessment approaches have offered industry, regulators and consumers an effective means to demonstrate regulatory compliance. Such standards not only generate efficiencies of scale and expedite the development and distribution of new innovations, but they are also the basis for technical regulations that are neither discriminatory nor unnecessarily restrictive.

Our response to the NIST RFI identifies the challenges arising from the application of country- or region-specific technical requirements or standards (sometimes mandated via conformity assessment procedures or other means) to services that are delivered or performed electronically ("digitally enabled services"). We also propose several possible solutions to this challenge.

## **II. How Deviation from International Standards Negatively Impacts Services Trade and Economic Competitiveness**

In digital services, governments are increasingly applying technical regulations or technical standards-based governance approaches which often disregard relevant international standards and instead advance more localized industrial policy which often elevates domestic concerns and disadvantages foreign suppliers through preference policies relating to, but not limited to, emerging technology areas such as cybersecurity, artificial intelligence (AI), cloud computing, or for reasons of industrial policy. These approaches often seek to leverage tools traditionally used to regulate goods – such as the use of standards and mandatory conformity assessment requirements such as testing, certification, labeling, or other technical requirements ("technical requirements or standards") – to regulate digitally enabled services in non-transparent and unnecessarily restrictive manner.

When governments mandate compliance with country- or region-unique technical requirements or standards in lieu of measures that are international in nature, they create the risk of discriminatory requirements, non-tariff barriers to trade, and avoidable regulatory divergence and incompatibility. Such restrictions undermine market access commitments and contribute to increased costs, such as those imposed by additional testing or other requirements, that disproportionately hurt workers and SMEs that produce digital services or connected goods for export.

An OECD analysis has shown that in relatively more restrictive services markets, new exporters confront costs as much as 53 percent greater than those faced by incumbent exporters. As SMEs predominantly

operate in the services space and frequently have limited or no export experience, countering emerging restrictions to services trade would promote the success of new and emerging firms by enabling new export opportunities.<sup>1</sup>

Examples of problematic measures and processes include:

- The absence of due process safeguards that are typically part of the international standards development. For example, country- or region-specific government-directed groups are often directed to establish technical requirements or standards for particular technologies that do not adhere to due process-based procedures/policies and inclusiveness requirements that are typically part of fair and effective multi-stakeholder international standards development processes;
- Measures requiring certification of products/services to unique requirements or encryption standards that do not align with international standards; and
- Frameworks to regulate or establish procurement criteria for emerging technologies, such as AI, Blockchain, or cloud computing, that would mandate preferences for, or reliance on, one country or region's technical requirements, standards, local testing bodies, or specific technologies.

#### Current Gaps in Coverage by International Rules

Currently, the coverage by international trade obligations of digitally enabled services falls into a “grey area” in existing rules regarding standards and technical regulations used for conformity assessment. The TBT Agreement and Code of Good Practice do not clearly and unambiguously apply across all digitally enabled services. While the General Agreement on Trade in Services (GATS) contains some disciplines on regulatory matters, they are weak, falling short of TBT disciplines and their application is limited to sectors in which WTO Members have undertaken express market access commitments.

TBT Agreement: The TBT Agreement contains non-discrimination and procedural commitments for the development and application of technical requirements and standards by governments relating to “products or related processes and production methods.” The coverage of “products or related processes” could support a range of digital services incidental to the operation of products in various sectors of the economy, including AI-, cloud-, and other digitally-enabled processes. Additionally, the coverage of “production methods” could involve digital services relating to product design, fabrication, assembly, repair, and follow-on support. However, the TBT Agreement does not apply across digitally enabled services, especially those that are not related to “related processes and production methods”, and thus additional disciplines are necessary to more clearly cover all technical regulations and standards for digitally enabled services.

The TBT Agreement requires WTO Members to base technical regulations on international standards<sup>2</sup> and encourages interoperability among different countries' technical regulations. These and other TBT provisions facilitate regulatory compatibility and reduce barriers to trade, especially when requirements are based on open, consensus-based, industry-driven standards. It will be helpful to clarify that these principles also apply to technical requirements or standards countries may adopt with respect to all digitally enabled services.

GATS: The GATS includes general transparency obligations under Articles III and VI regarding measures of general application affecting trade in services. Article III includes requirements that apply on an MFN basis for prompt publication of “relevant measures of general application” which affect the operation of the GATS and to respond to requests for information regarding a measure or international agreement affecting trade in services and to establish a national point of inquiry. Article III also contains a requirement that in areas in which they have taken specific market access commitments, WTO members must notify the Council on Trade in at least annually on any new or amended laws or regulations which “significantly affect” trade in services in services sectors covered in their GATS schedules.

While the transparency elements of Article III are particularly weak, Article VI provides some greater specificity as to the administration of services regulation, requiring in Article VI.1 that in all sectors where a WTO member has taken specific commitments they must ensure that measures of general application affecting trade in services must be administered in a reasonable, objective and impartial manner. In order to try to ensure that measures relating to qualification requirements and procedures, technical standards and licensing requirements do not create unnecessary barriers to trade, Article VI.4 directed the "Council on Trade in Services through appropriate bodies it may establish" to develop "any necessary disciplines" to ensure that such requirements are based on objective and transparent criteria, and not "more burdensome than necessary to ensure the quality of the service"

*Services Domestic Regulation Reference Paper*: The negotiating mandate provided under GATS Article VI.4 ultimately produced a Reference Paper on "Services Domestic Regulation,"<sup>3</sup> which builds on the limited domestic regulation provisions contained in Article VI of the GATS. specifically Article IV:4. The scope of the Paper includes disciplines that, "... apply to measures by Members relating to licensing requirements and procedures, qualification requirements and procedures and technical standards affecting trade in services." This covers measures that apply to submitting and processing applications, fees, assessment of qualifications, independence of regulators, and publication of information regarding requirements/procedures. The disciplines call for advance publication of laws, regulations, and administrative procedures; opportunity to comment on, and understand the rationale for, laws and regulations; and sufficient time periods to allow for companies to comply with them.

Regarding technical standards, the Reference Paper provides as follows:

Each Member shall encourage its competent authorities, when adopting technical standards, to adopt technical standards developed through open and transparent processes, and shall encourage any body, including relevant international organizations designated to develop technical standards to use open and transparent processes." [Note: The term "relevant international organizations" refers to international bodies whose membership is open to the relevant bodies of at least all Members of the WTO.]

Lastly, the Paper sets disciplines to ensure measures are objective and based on transparent criteria, are impartial and do not in themselves "unjustifiably prevent the fulfillment of requirements." We note that the Domestic Regulations Reference paper provides WTO members with the option of excluding the application of the disciplines to technical standards for financial services.

While the Reference Paper is a useful step forward in encouraging that digitally enabled services standards be created through open and transparent processes, it lacks specificity and falls far short of those provided for in the TBT Agreement. In addition, like GATS Articles III.3 and VI, the coverage of the Reference paper is not comprehensive. Not only does the paper only apply with respect to sectors in which the member has taken specific market access commitments, but members retain the right to decide whether or not to abide by the obligations of the Reference Paper itself and incorporate in their GATS market access schedules. Finally, while WTO members do have the ability to schedule market access commitments covering digitally enabled services such as database (cloud and other computer related services) coverage of such services in member schedules is lacking, underscoring to the need for a more comprehensive set of disciplines.

### **III. Possible Next Steps**

We discuss below two possible next steps to address the concerns raised above: A. The strengthening of international agreements and related processes to promote core disciplines of transparency, non-discrimination, and procedural fairness in standards development; and B. Additional steps that companies can take to strengthen participation in international standards development processes.

#### **A. Strengthening Norms Relating to International Standards Development**

In the WTO, APEC, G7, G20, and OECD, as well as in bilateral and regional agreements, governments are working to strengthen digital policy coordination. It is critical that these efforts:

- Support disciplines and best practices to address discriminatory, unnecessary, and/or non-transparent technical requirements or standards affecting digital services, including in the cross-border context;

Ensure that digitally enabled services benefit from greater regulatory interoperability and compatibility, based on a broad commitment to the open, voluntary, and industry-driven development of technical requirements or standards; and

Such efforts would complement other disciplines in the areas of cross-border trade in services, financial services, digital trade, and telecommunications, as well as domestic regulation and good regulatory practices. Possible vehicles<sup>4</sup> include:

- Developing joint statements, principles, memoranda of understanding, mutual recognition agreements/arrangements, compilations of best practices, international regulatory roadmaps, or other outcomes in the context of new negotiations (e.g., the Indo-Pacific Economic Framework (IPEF), U.S.-EU Trade and Technology Council (TTC)) and existing entities (e.g., APEC, the OECD, the G7 or other international organizations);
- Jointly building on the technical standards language agreed to in WTO Services Domestic Regulations text, plus key provisions adopted from USMCA Good Regulatory Practices and the TBT Agreement, for potential inclusion in:
  - Digital Economy Agreements;
  - Digital trade chapters in international agreements led by the Commerce Department; or
  - WTO processes, whether in new negotiations or amendments or interpretations to existing agreements (e.g., application of TBT Agreement disciplines to digital services under WTO Annex IB); or
- Advancing the APEC Workstream for Digital Services and Standards.

#### **B. Increasing US Public and Private Stakeholder Participation in International Standards Development**

While membership and processes vary across standards organizations, there are various ways that private stakeholders can typically influence the content of a standard. Below we summarize these as direct and indirect ways to influence standards development.

<b>Direct</b> (roughly in order of increasing influence)	<b>Indirect</b> (roughly in order of increasing influence)
<ol style="list-style-type: none"> <li>1. Vote – The influence of an organization’s vote varies by a committee’s rules on what constitutes a member. It can be by individual expert, organization, and/or country.</li> <li>2. Send in written contributions/comments that are accepted as proposed or in principle. For certain technologies, a standards essential patent is another indicator of influence.</li> <li>3. Consistently attend and participate in the standards committee meetings. (This also supports indirect influence “C.”)</li> <li>4. Propose a standards project that gets approved and ultimately published.</li> <li>5. Contribute early in the project’s development cycle, where such participation shapes the proposal’s scope or general direction of the project.</li> </ol>	<ol style="list-style-type: none"> <li>A. Ask other members to support the same voting or substantive position through their written comments.</li> <li>B. Ask the leading experts/voices in a standards committee to support your position in meetings.</li> <li>C. Be a leading expert/‘trusted voice’ in a standards committee to influence meeting participants.</li> <li>D. Serve as a chair of a committee or as a lead editor.</li> </ol>

The column of direct ways to influence a standard can generally be observed by standards committee managers (and members). But three of the four indirect ways are difficult to measure since the information for A and B will only be known to limited parties, and C is subjective.

Chairs and editors roles vary, but they do not provide a way to directly influence the content of standards. These positions are used to manage and lead members to arrive at consensus-based decisions. Note that committee managers and secretariats are not included in either list.

We therefore advise that any recommendations on how the United States can take steps to influence (or mitigate the influence of others) in international standards development bodies be based on factors detailed above.

Finally, while government stakeholders often do not have a direct participatory role in standards development organizations, there are several steps that the US government could take to strengthen US participation in SDOs. This could include:

- Hosting international standards meetings in the U.S.
- Funding pre-standardization research and clarify the R&D Tax Credit.
- Expediting visas to attend standards meetings in the U.S.
- Funding government grants to encourage U.S. participants to seek international standards leadership roles.
- Expanding public-private partnerships on standards-related education and training to build capacity for effective U.S. public and private sector participation and leadership in international standardization activities.
- Encouraging the continuing support of due process-based requirements for the development of open, inclusive, and consensus-driven voluntary standards.
- In government-to-government discussions (a) promote the existing WTO TBT “Principles for the Development of International Standards, Guides and Recommendations” and related “Code of Good Practice” (and other good regulatory practices) as a framework method for helping to ensure fair access to international markets, (b) avoid any potential to fragment the international standards system into regional and/or national factions, and (c) consult with U.S. stakeholders when appropriate, including the private sector.<sup>5</sup>

#### IV. Conclusion

Thank you for the opportunity to present these views. Please feel free to direct any views to Joseph Whitlock, Director, Policy at BSA | The Software Alliance. (josephw@bsa.org)

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<sup>1</sup> OECD (2017), *Services Trade Policies and the Global Economy*, OECD Publishing, Paris.  
<http://dx.doi.org/10.1787/9789264275232-en>

<sup>2</sup> *i.e.*, All those developed in accordance with Annex 2 to Part 1 (Decision of the Committee on Principles for the Development of International Standards, Guides and Recommendations with relation to Articles 2, 5 and Annex 3 of the Agreement) in the Decisions and Recommendations adopted by the WTO Committee on Technical Barriers to Trade Since 1 January 1995 (G/TBT/1/Rev.13), as may be revised, issued by the WTO Committee on Technical Barriers to Trade.

<sup>3</sup> WTO Document WT/L/1129 of 2 December 2021, “Declaration on the Conclusion of Negotiations on Services Domestic Regulation” and WTO Document INF/SDR/2 of 26 November 2021 on “Joint Initiative on Services Domestic Regulation.”

<sup>4</sup> In the long term, another goal could be to clarify application of existing WTO obligations in the Agreement on Technical Barriers to Trade (TBT) and the General Agreement on Trade in Services (GATS). This could take place by, for example, extending TBT-related disciplines to digital services, including in the context of trade agreements such as the WTO TBT Agreement and recent trade agreements; raising the issue in the TBT Committee, including triennial reviews; and pursuing the issue as part of implementation of the GATS “Reference Paper on Services in Domestic Regulation.”

<sup>5</sup> See *generally*, Response of Microsoft Corporation to the Request for Information on the United States Government’s National Standards Strategy for Critical and Emerging Technology (USG NSSCET) (Dec. 6, 2023).