



Workshop

Realizing the Benefits of the Digital Economy -

Agility Through Standards

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Realizing the benefits of the digital economy through standards

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Session 1 – Regulation in the 21st century and the role of standards

The US government's approach to standards

- *Deference to “voluntary consensus standards”*
- *Statute and policy require consideration of private sector led standards first, in lieu of government unique standards*
- *Considerable leeway in selecting standards*
- *Articulate government's unique standards needs*
- *Government experts participate in private sector standards development*

Digital Economy & its impact

Digital Economy is part of our daily lives.

- Direct outcome of connectivity
- Transforming how we live, work and play
- Impacting all sectors of the economy
- Examples:
 - AES – Added \$ 250B to the economy since late 90s
 - IoT impact of approx. \$ 4T- \$11T by 2025
 - Blockchain tech could save banks more than \$20B annually by 2022



Courtesy: economist.com



Courtesy: mashable.com

Courtesy: Brookings.edu



The Digital Economy

- *Refers to the integration of a range of emerging and developing technologies – AI, Cloud computing, 5G, Blockchain, IoT, etc.*
- *Signifies outsize impact of emerging digital technologies*
- *Some unique challenges:*
 - *Incredibly rapid pace of technology evolution*
 - *Interoperability*
 - *Deployment speed and scale*
 - *Global nature of technologies and application*
 - *User expectations*



The standards imperative

- *ONLY feasible solution to address these challenges in a timely and fit-for-purpose manner*
- *Recognition of the important role of standards:*
 - *Address government's variety of needs*
 - *Address national priorities relating to innovation, economic competitiveness, national security*
 - *Generate user confidence in tech*
- *Flexibility in use:*
 - *Articulate government's standards-related priorities*
 - *Incorporation by reference*
 - *Standards listed in informative annexes*



How and why standards are / were used

- *Examples:*
 - *Executive Order on Strengthening the Cybersecurity of Federal Networks and Critical Infrastructure*
 - *National Quantum Initiative Act*
 - *NIST Cybersecurity Framework*
 - *Federal Risk and Authorization Management Program (FedRAMP)*
- *Use of standards bound to increase*
 - *Technology convergence*
 - *Interoperability*
 - *System of system approaches*

How and why standards were used

- *Approaches and success factors:*
 - *Statutory and policy framework*
 - *Strong champions for the use of standards*
 - *Robust networks for information sharing and raising awareness*
 - *Open and transparent processes for stakeholder engagement*
 - *Multiple opportunities for stakeholder input*
 - *Choices to identify timely, robust and fit-for-purpose standards*



Benefits and outcomes of using standards

- Significant benefits to government
 - Timely solutions for rapidly moving technologies
 - Access to expertise not always available within the government
 - COTS – economies of scale
 - Builds experience to inform sound rule making, when needed
 - Solutions that reflect government needs
 - Strengthens public-private partnerships
 - Enables and facilitates innovation, competitiveness



Challenges and opportunities in working with standards bodies

- *Clear framework defining the nature of partnership is essential*
- *Private-public partnership in every sense – government does not put its finger on the scale*
- *Mechanism to coordinate among government agencies*
- *Continuous engagement with policy makers and government leaders*
- *Standards developers articulating the value proposition*
- *Standards as a means to an end*

Thank You!