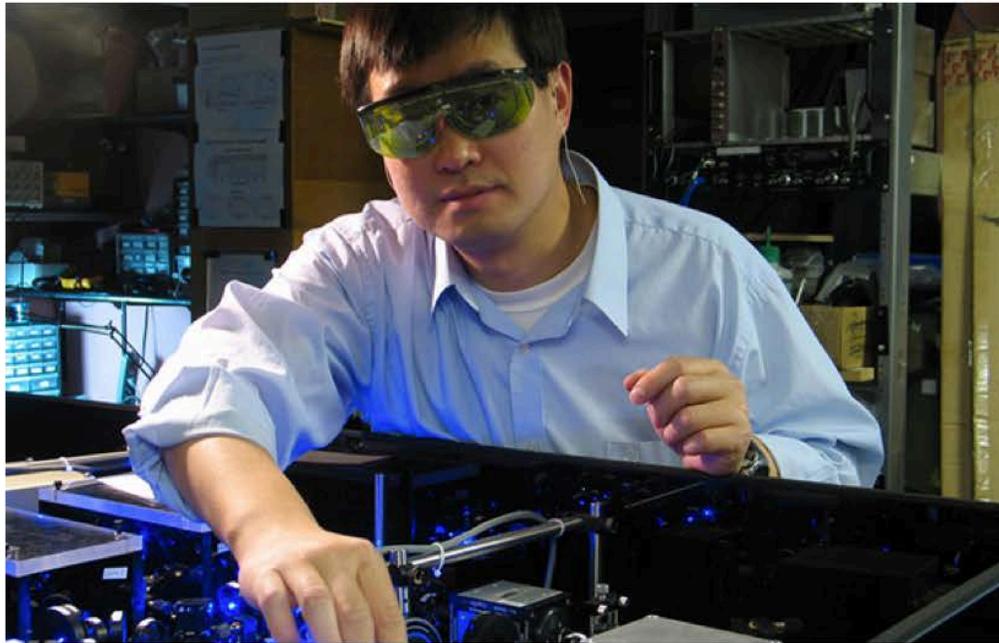


NIST Cybersecurity Activities

August 7, 2019

Cultivating Trust in IT and Metrology



ITL's work

Fundamental
Research

Applied
Research

Standards +
Best Practice
Guides

Adoption

Image Credit: wsj.com

NIST Priority Areas



Quantum Science



Engineering Biology

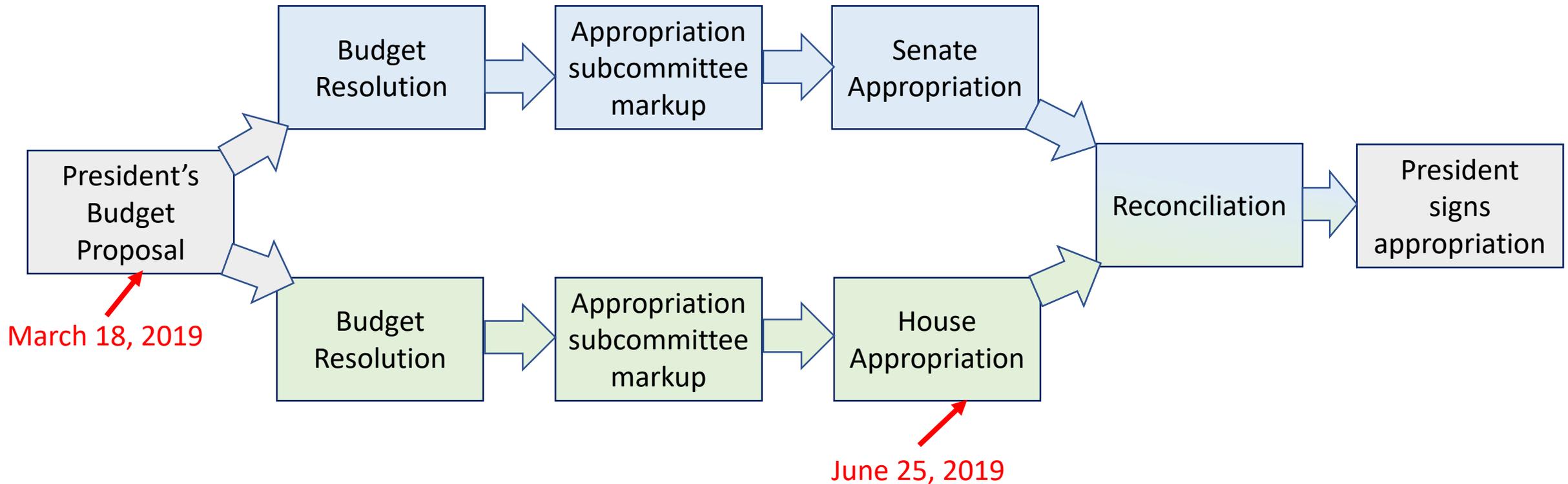


Artificial Intelligence



Internet of Things

Budget process



Pending Legislations

116TH CONGRESS
1ST SESSION

H. R. 1668

To leverage Federal Government procurement power to encourage increased cybersecurity for Internet of Things devices, and for other purposes.



IoT Cybersecurity Improvement Act of 2019
Rep. Robin Kelly [D-IL-2]
House - Oversight and Reform; Science, Space,
and Technology

116TH CONGRESS
1ST SESSION

S. 734

To leverage Federal Government procurement power to encourage increased cybersecurity for Internet of Things devices, and for other purposes.



IoT Cybersecurity Improvement Act of 2019
Sen. Mark Warner [D-VA]
Senate - Homeland Security and Governmental
Affairs

1 **Small Business Cybersecurity**

March 13, 2019

Senate Committee on Small Business and
Entrepreneurship

3,4 **Facial Recognition Technology**

June 4, 2019

House Committee on Oversight and Gov. Reform
July 10, 2019
House Committee on Homeland Security

2 **IoT Vulnerabilities**

April 30, 2019

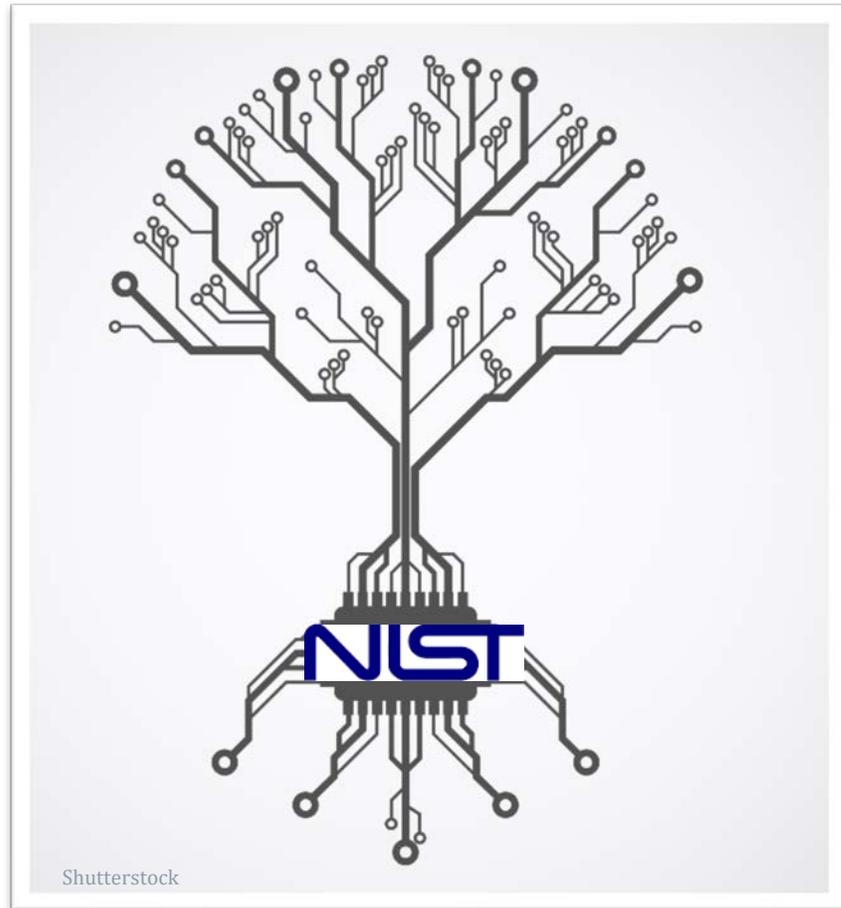
Senate Committee on Commerce, Science,
and Transportation

5 **Election Security**

June 25, 2019

Subcommittee on Investigations & Oversight
House Committee on Science, Space and
Technology

Cybersecurity and Privacy Objectives



1. Develop and Issue a Privacy Framework by Fall 2019.

2. Develop and Issue FIPS 140-3, Security Requirements for Cryptographic Modules.

3. Advance the Cybersecurity Framework and other cybersecurity, privacy, and supply chain risk management practices through a series of workshops.

4. Complete round 2 of the Post Quantum Cryptography algorithm identification and selection process by 2020.

The existing foundations of both fundamental cryptography and cryptographic standards that established trust in our global information technology infrastructure were largely developed in the United States, primarily by NIST in partnership with the private sector.



Post-quantum Cryptography



Lightweight Cryptography



Automated Cryptographic Validation Protocol

Privacy Framework

Envisioned to be a
voluntary enterprise risk management
tool to help organizations manage
individuals' privacy risk



April 30, 2019: Discussion draft
June 26, 2019: Supplemental
materials to the discussion draft

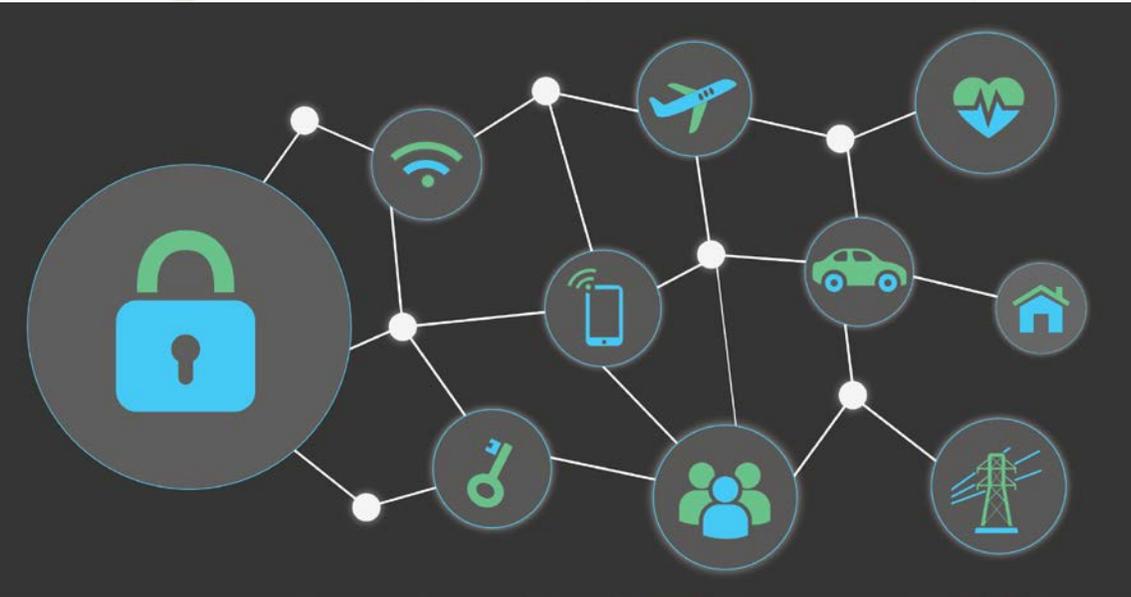


July 8-9, 2019: Workshop #3
Boise, ID



August 2019: Preliminary draft
December 2019: Version 1.0

Cybersecurity for Internet of Things



- NISTIR 8228 Consideration for a core IoT cybersecurity capabilities baseline. Published in June, 2019
- Workshop on core IoT cybersecurity baseline. August 13, 2019

Building **trust** in technology by driving adoption of **standards-based cybersecurity solutions** to address business needs



40+ NCEP



Practice guides
SP 1800 series



New programs

EXECUTIVE ORDERS

Executive Order on Maintaining American Leadership in Artificial Intelligence

— INFRASTRUCTURE & TECHNOLOGY | Issued on: February 11, 2019



Within 180 days of the date of this order,

NIST is tasked with developing a plan for Federal engagement in the development of technical standards and related tools in support of reliable, robust, and trustworthy systems that use AI technologies.

Plan for Federal engagement in the development of AI standards



Bolster AI knowledge and coordination among Fed agencies.



Plan, support, and conduct research and evaluation.



Support and expand public-private partnerships.



Strategically engage with international parties.

Joint NSTC + NITRD Workshop on AI & Cybersecurity



Office of Science and Technology Policy

NSTC



MLAI Subcommittee
Chaired by NIST, OSTP, DoE

AI Select Committee
Chaired by OSTP, NSF, DARPA

Joint NITRD and NSTC
workshop on AI and Cybersecurity
June 3-5
University Maryland College Park.

Save the Date

2022
***Celebrating 50 years
of Cybersecurity research at NIST***

