

Privacy Subteam Recommendations

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Internet of Things Advisory Board (IoTAB)

Summary of Recommendations – Privacy Subgroup

R01 - Use Plain Language in Privacy Policies for IoT (approved July 2023)

R02 - Establish “Third-Party” Data Sharing and Data Use Policies (approved July 2023)

R03 - Create an IoT Privacy Framework for Innovation and Data Protection (approved July 2023)

R04 - Include IoT in US Federal Privacy Regulation Proposal (Updated and approved August 2023)

R05 – Create Privacy Transparency for IoT (approved July 2023)

R06 - Create IoT-focused educational initiatives for workforce development and business, government, and consumer data privacy/trust (approved July 2023)

R07 - Promote the implementation of Privacy-Enhancing Technologies (PETs) in IoT systems (approved July 2023)

R08 - Privacy By Design for IoT (Nee proposal approved August 2023)

Use Plain Language in Privacy Policies as part of the Federal Acquisition Regulation (FAR) requirements per the Internet of Things (IoT) Cybersecurity Improvement Act of 2020

- Improved understanding of Data Privacy policies for users, leading to more informed decisions when using IoT devices
- Enhanced public trust in IoT devices and related technologies
- Simplified policies may lead to increased compliance and reduced legal disputes

Implementation

- Develop guidelines and best practices for organizations to follow when simplifying privacy policies
- Establish high-level guidance for evaluating and assessing the readability of privacy policies
- Coordinate with relevant stakeholders, including the private sector and business, government, and consumer data advocacy groups, to ensure widespread adoption

Barriers

- Resistance from organizations that may perceive simplification as a limitation on their legal protections
- Possible challenges in defining the appropriate level of simplification while maintaining accuracy and comprehensiveness
- Monitoring and updating the simplification guidelines to account for technological advancements and emerging privacy concerns

Agencies

- National Institute of Standards and Technology (NIST)
- Department of Commerce (DoC)
- The Office of Management and Budget (OMB)
- Office of the National Cyber Director (ONCD)

Federal considerations

- Procurement: Create requirements for IoT providers to implement simplified privacy policies for government contracts
- Use National Cybersecurity Strategy Implementation Plan July 2013 - Initiative Number: 3.2.1 Initiative Title: Implement Federal Acquisition Regulation (FAR) requirements per the Internet of Things (IoT) Cybersecurity Improvement Act of 2020
- Use National Cybersecurity Strategy Implementation Plan July 2013 - Initiative Number: 1.1.1 Initiative Title: Establish an initiative on cyber regulatory harmonization
- Plain Writing Act of 2010" (Public Law 111-274)

R02 - Establish “Third-Party” Data Sharing and Data Use Policies

Approved by the IoTAB July 2023

Justification

Establish clear policies for third-party data sharing and IoT device data use

- Increased interconnectivity and data-sharing capabilities of IoT devices present significant privacy risks.
- Policies safeguard users' personal data and ensure transparency.
- Clear policies foster trust and encourage IoT adoption.

Implementation

- Create guidelines on how to effectively communicate third-party data sharing and data use in privacy policies
- Implement public awareness campaigns about these policies to educate users about their data rights

Barriers

- Resistance from IoT companies who rely on third-party data sharing for business operations
- Challenges in aligning these policies with existing privacy regulations and international data protection standards

Agencies

- National Institute of Standards and Technology (NIST)
- Federal Trade Commission (FTC)
- Department of Energy (DOE)
- United States Department of Agriculture (USDA)
- Office of the National Cyber Director (ONCD)

Federal considerations

- Policies & Frameworks: Work with industry leaders to establish data use guidelines for Third-Party” Data Sharing and Data Use Policies
- Use National Cybersecurity Strategy Implementation Plan July 2013 -Initiative Number: 1.1.1 Initiative Title: Establish an initiative on cyber regulatory harmonization
- Use National Cybersecurity Strategy Implementation Plan July 2013 - Initiative Number: 1.1.3 Initiative Title: Increase agency use of frameworks and international standards to inform regulatory alignment

Approved by the IoTAB July 2023

Develop an IoT Privacy Framework for Innovation and Data Protection specifically tailored to the unique challenges posed by IoT devices

Implementation

- Incorporate lessons learned from existing privacy regulations, such as the CCPA and GDPR, to create a more effective and efficient framework
- Ensure that the framework is adaptable and scalable to accommodate the rapidly evolving nature of IoT technology and the Data Privacy Landscape

Agencies

- National Institute of Standards and Technology (NIST)

Barriers

- Balancing between protecting business, government, and consumers' Data Privacy and fostering innovation in the IoT sector
- Providing resources, guidance, and support to businesses for the adoption and implementation of the IoT Privacy Framework
- Reviewing and updating the IoT Privacy Framework to ensure it remains relevant and effective in addressing emerging Data Privacy challenges and technological advancements

Federal considerations

- Partnership: Develop the IoT Privacy Framework in partnership with industry and privacy experts
- Working with US States: Collaboration with US States who have already passed privacy laws or are in the process of advancing legislation would be key for regulatory alignment
- Use National Cybersecurity Strategy Implementation Plan July 2013 -Initiative Number: 1.1.1 Initiative Title: Establish an initiative on cyber regulatory harmonization
- Use National Cybersecurity Strategy Implementation Plan July 2013 - Initiative Number: 1.1.3 Initiative Title: Increase agency use of frameworks and international standards to inform regulatory alignment

Justification

- Provides a consistent, unified approach to Data Privacy and security in the IoT sector, reducing confusion and fragmentation for business, government, and consumers
- Several US States have passed comprehensive privacy laws, and several other states are in the process of advancing privacy legislation.
- Encourages innovation by providing clear guidelines and expectations for IoT device manufacturers, fostering a competitive and growth-oriented environment

R04 - Include IoT in US Federal Privacy Regulation Proposal

R04

Updated and approved August 2023

Add IoT Data Retention Transparency: Establish guidelines for manufacturers to establish clear policies on how long business, government, and consumer data is retained

Implementation

- Update **contemplated federal legislation, e.g., American Data Privacy and Protection Act (ADPPA) H. R. 8152**
- to address emerging Data Privacy challenges and technological advancements related to IoT

Agencies

- Congress
- Department of Commerce (DoC)
- National Institute of Standards and Technology (NIST)
- Federal Trade Commission (FTC)

Justification

- **Supports contemplated federal legislation, e.g., American Data Privacy and Protection Act (ADPPA) H. R. 8152**
- **Enhance legislation such as ADPPA by adding language related to IoT Data Retention Transparency**
- Ensures that IoT device manufacturers share a consistent set of privacy standards, enhancing business, government, and consumer data trust and protection
- Facilitates innovation by providing clear guidelines and expectations for IoT businesses, fostering a competitive and growth-oriented environment

Barriers

- Achieving consensus among stakeholders and state-level regulators on the most effective elements and practices to incorporate into the Federal Privacy legislation
- Ensuring compatibility with existing national and international privacy regulations
- Balancing between protecting business, government, and consumer Data Privacy and fostering innovation in the IoT sector
- Providing resources, guidance, and support to businesses for the adoption and implementation of the IoT specific guidance

Federal considerations

- **Legislation: Support IoT addition to contemplated Federal Data Privacy legislation (e.g., the American Data Privacy and Protection Act, or ADPPA)**

Approved by the IoTAB July 2023

Justification

Develop and implement a privacy transparency system for IoT devices, using the “U.S. Cyber Trust Mark” for business, government, and consumer data for Connected Devices and other transparency programs as a guide

- Empowers businesses, governments, and consumers to make informed decisions about IoT devices based on their privacy features and practices
- Encourages IoT device manufacturers to prioritize privacy, fostering competition and innovation in privacy-enhancing technologies
- Enhances overall Cybersecurity and data protection by promoting greater business, government, and consumer data awareness of privacy practices

Implementation

- Consider input from privacy experts, industry stakeholders, and business, government, and consumer data advocacy groups to develop privacy transparency, including content and design
- Develop guidelines and standards for privacy transparency, including required information, format, and or product information
- Encourage IoT device manufacturers to adopt privacy transparency and provide resources to help them align with the new recommendations

Barriers

- Ensuring broad adoption and compliance with the privacy transparency system across different industries and sectors
- Incentivizing IoT device manufacturers who may perceive privacy transparency as burdensome, costly, or restrictive
- Balancing the need for comprehensive privacy information with simplicity and ease of understanding for businesses, the government, and consumers

Agencies

- Department of Commerce (DoC)
- National Institute of Standards and Technology (NIST)
- Federal Trade Commission (FTC)

Federal considerations

- Promotion: Publicize the benefits of IoT privacy transparency
- Partnership: Work with industry leaders to develop privacy transparency
- Use National Cybersecurity Strategy Implementation Plan July 2013 -Initiative Number: 1.1.1 Initiative Title: Establish an initiative on cyber regulatory harmonization
- Use National Cybersecurity Strategy Implementation Plan July 2013 - Initiative Number: 3.2.2 Initiative Title: Initiate a U.S. Government IoT security labeling program “U.S. Cyber Trust Mark”

Approved by the IoTAB July 2023

Justification

Develop educational initiatives that include IoT, targeting workforce development, and enhancing business, government, and consumer data privacy and trust

- Increase in the understanding and safe use of IoT technologies
- Development of a highly skilled workforce capable of addressing IoT privacy challenges
- Boosting business, government, and consumer data trust and adoption of IoT devices and services

Implementation

- Defining the scope and content of educational initiatives
- Identifying key target audiences (schools, universities, businesses, general public)
- Collaborating with educational institutions and industry leaders
- Ensuring the relevancy and practicality of the educational content
- Regularly updating the initiatives to keep pace with technological changes
- Workforce development to encompass personas, including manufacturers, Implementers, service providers, and workers.

Barriers

- Difficulty in keeping up with the fast-paced advancements in IoT
- Challenges in reaching and engaging the targeted audiences
- Securing sufficient funding and resources

Agencies

- National Institute of Standards and Technology (NIST)
- Office of the National Cyber Director (ONCD)

Federal considerations

- Promotion & Education: Publicize the importance of IoT education and promote the adoption of educational programs for workforce development and business, government, and consumer data trust
- Use National Cybersecurity Strategy Implementation Plan July 2013 - Initiative Number: 4.6.1 Initiative Title: Publish a National Cyber Workforce and Education Strategy and track its implementation

Approved by the IoTAB July 2023

Promote the implementation of Privacy-Enhancing Technologies (PETs) in IoT systems

Implementation

- Ensuring robust security measures for PETs to prevent unauthorized data access
- Conducting comprehensive technical and ethical evaluations of PETs before their adoption
- Enhancing public understanding and Trust in PETs
- Encouraging interoperability between different PETs systems
- Establishing a framework for monitoring the effectiveness and impacts of PETs in IoT

Agencies

- The Office of Science and Technology Policy (OSTP)
- National Institute of Standards and Technology (NIST)

Justification

- PETs protect privacy while extracting valuable insights from the vast IoT data
- They align with responsible data use without compromising user privacy
- PETs support broader U.S. goals of leveraging technology for societal benefits
- Their use fosters trust and promotes acceptance of IoT solutions
- Implementation of PETs can prevent data breaches and associated legal issues

Barriers

- Limited technical expertise to understand, implement, and manage PETs
- Possible resistance from private sectors due to perceived risks or costs
- The complexity of developing universally accepted privacy standards for IoT

Federal considerations

- Internet of Things (IoT) Cybersecurity Improvement Act of 2020
- The White House’s Advancing a Vision for Privacy-Enhancing Technologies proposal (June 2022)
- Use National Cybersecurity Strategy Implementation Plan July 2013 - Initiative Number: 1.2.1 Initiative Title: Scale public-private partnerships to drive development and adoption of secure-by-design and secure-by-default technology

New proposal Approved August 2023

Promote "Privacy by Design" in IoT device development, deployment, and implementation

Implementation

- Develop clear Privacy by Design guidelines
- Provide incentives to compliant companies
- Educate businesses and consumers on privacy in IoT
- The US Government should consider companies that adopt PbD in the sourcing decisions

Agencies

- The Office of Science and Technology Policy (OSTP)
- National Institute of Standards and Technology (NIST)
- Federal Trade Commission (FTC)

Barriers

- Challenges in monitoring diverse and evolving IoT applications
- Possible resistance from private sectors due to perceived risks or costs
- The complexity of developing universally accepted privacy standards for IoT

Federal considerations

- Ensure adaptability of principles to various IoT devices.
- Align with international privacy standards.
- Support SMEs in adherence.
- Regularly evaluate and refine guidelines and incentives.
- Use National Cybersecurity Strategy Implementation Plan July 2013 -Initiative Number: 1.2.1 Scale public-private partnerships to drive development and adoption of secure-by-design and secure-by-default technology

Justification

- Aligns with the US National Strategy To Advance Privacy-Preserving Data Sharing And Analytics (PPDSA), March 2023
- Aligns with National Cybersecurity Strategy Implementation Plan July 2013 -Initiative Number: 1.2.1 Scale public-private partnerships to drive development and adoption of secure-by-design and secure-by-default technology
- Provide incentives to compliant companies
- Educate businesses and consumers on privacy in IoT
- Minimizes data privacy risk and minimizes associated legal ramifications
- Aligns with international data protection standards