



POLICY & ACTION FROM CONSUMER REPORTS

February 27, 2017

National Telecommunications and Information Administration
U.S. Department of Commerce
1401 Constitution Avenue, NW
Room 4725
Attn: IOT RFC 2017
Washington, DC 20230

Re: Docket No. 170105023-7023-01

Request for Comments on the Benefits, Challenges, and Potential Roles for Government in Fostering the Advancement of the Internet of Things

Dear Sir or Madam:

Consumers Union, the policy and mobilization arm of Consumer Reports,¹ appreciates this opportunity to comment on the National Telecommunications and Information Administration's (NTIA) request for comments regarding the benefits, challenges, and potential roles for government in fostering the advancement of the Internet of Things (IoT). We are pleased that the NTIA is engaged in the consideration of the implications for our economy and our society of the emerging Internet of Things, and we look forward to working with you to help ensure that it develops in the best interests of consumers.

The presence and proliferation of connected devices for consumers, industrial operations, and public infrastructure implicates a range of privacy, security, safety, and legal accountability issues. Accordingly, the presence of these concerns requires the sustained attention of a variety of experts in and out of the government. Forefront among the issues IoT devices pose is safety. In addition, privacy and data security practices that benefit and protect the consumer must be a priority for manufacturers, policy makers, and enforcement authorities.

Although consumers desire connected devices that can make their lives easier, more efficient, and more productive, consumers are generally unaware or unable to protect against the security concerns posed by vulnerable or outdated IoT devices and accompanying software. Currently, the safety of connected devices is often obscured or unknown to the common

¹ Consumers Union is the policy and mobilization arm of Consumer Reports. Consumers Union is an expert, independent, nonprofit organization whose mission is to work for a fair, just, and safe marketplace for all consumers and to empower consumers to protect themselves. It conducts this work in the areas of telecommunications reform, as well as financial services reform, food and product safety, health care reform, and other areas. Consumer Reports is the world's largest independent product-testing organization. Using its more than 50 labs, auto test center, and survey research center, the nonprofit organization rates thousands of products and services annually. Founded in 1936, Consumer Reports has over 8 million subscribers to its magazine, website, and other publications.

consumer. Consumers should be provided with effective and accurate information in order to select products based on security, safety, and privacy, in addition to the price, form, and function of a product. Because the safety of these products is difficult for a consumer to measure, but pose risks not only to their home networks but also their personal data, companies should be held accountable for, and transparently compete against other similar companies on the basis of, their data privacy and security standards.

Additionally, consumers should be able to buy connected products with confidence, with awareness of the possibly sensitive nature of the data trafficked through the device and recognizing the possibly vulnerable users of the connected product. For instance, a connected home device like a Google Home or an Amazon Echo has the potential to convey personal and sensitive information about a individual's buying, listening, and searching habits, as well as audio information about activities within the home. Consumers often buy connected devices that are used by many members of the family, including vulnerable users like children. Although there are protections for devices marketed and designed especially for children, consumers need to be empowered to choose products that are safe for all members of their family or household. Internet connected devices should meet adequate safety and security measures in order to allow the consumer to choose products based on price, features, and other attributes without needing to obtain their own special knowledge regarding device cybersecurity.

Additionally, although the green paper notes the need for consumers to control and own their devices and the software embedded, we urge the NTIA to focus on the incidents of ownership, dominion, and control for consumers regarding their rights to use the products they have purchased as they see fit, and consumers should be assured of the continuing utility and value of the products once purchased.

The embedding of software into products that controls their functioning already significantly restricts the ability of consumers to decide how those products will be used. While software can enable product functioning on a more complex and sophisticated level, it can also take that functioning further and further out of the hands of the consumer. Consumers may lose the ability to make what once were simple adjustments in a product's operation, much less the ability to adapt the product in innovative ways, or to make even basic repairs. Moreover, the application of traditional patent and copyright principles to cover these functions may extend these restrictions on adjustment, adaptation, and repair to independent service providers, and to independent manufacturers of replacement parts and other compatible products, throwing up roadblocks to competition and consumer choice.

The potential for business practices to undermine long-held consumer rights is heightened significantly with the Internet of Things. When the functioning of a consumer product depends on an Internet connection, the company on the other side of that connection has the power to disable the product—or even erase it—with one stroke on a remote keyboard. Even the mere delivery of the product via the Internet, in electronic form, can tether its continued existence and functionality to the seller's future whims. A consumer attempting to exercise ownership and control of a product faces not only the prospect of potentially harsh legal liability for acting outside of restrictions imposed by contract fine print and obscure applications of copyright law, but also the prospect of the seller disabling the product, through some retaliatory action over the Internet, or through simply discontinuing the Internet connection or the remote support, or downgrading it, or imposing

unreasonable new fees for it.

As Internet of Things technology revolutionizes our economy, our infrastructure, and the way we live, there are numerous critical policy areas—safety, security, privacy, and legal accountability, among others—that need attention from the full complement of experts in and out of government.

For consumer products in particular, it is also critical that our laws keep pace to preserve the pillars of consumer ownership. There is no need to undermine or weaken long-held understandings of ownership rights in order to preserve legitimate copyright or contract interests. A few modest, common-sense clarifications will help ensure that consumers continue to have the rights to exercise the incidents of ownership, dominion, and control over the products and services they have paid for or have otherwise lawfully acquired, as they have come to understand and rely on those rights based on centuries of experience.

Respectfully submitted,

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