

Travis Hall

National Telecommunications & Information Administration U.S. Department of Commerce 1401 Constitution Avenue N.W., #4725 Washington, D.C. 20230

Re: In the Matter of the Benefits, Challenges, and Potential Roles for the Government in Fostering the Advancement of the Internet of Things, Notice and Request for Comment; Docket No. 160331306-6306-01; RIN 0660-XC024

Dear Mr. Hall:

Please accept on behalf of Vodafone US Inc. d/b/a Vodafone Americas ("Vodafone"), through its undersigned attorneys, the following comments in response to the NTIA's Notice and Request for Public Comment in the above-referenced docket ("Request for Comment") on the NTIA's green paper titled "Fostering the Advancement of the Internet of Things" ("Green Paper"). Vodafone thanks the Department of Commerce for its ongoing policy activity to promote the growth of the Internet of Things, and for the transparent way in which it has carried out this review. Vodafone generally agrees with the conclusions drawn in the Green Paper, but wishes to emphasize the following things.

First, Vodafone agrees with the NTIA's assessment of the challenges, benefits, and potential role of government,¹ but wishes to highlight in particular that governments should strive toward "global consistency and predictability" and connectivity that is "interoperable the world over."² As Vodafone noted in its comments last June, the inherently cross-border nature of IoT and the need to achieve economies of scale through a centralized platform require the free flow of data from country to country and the ability to purchase the same IoT solution for multiple countries without restrictions such as prohibitions against permanent roaming.

Similarly, with respect to whether the approach for Departmental action to advance IoT in the relevant areas of engagement is comprehensive,³ Vodafone generally agrees with the Green Paper but again wishes to highlight that IoT is inherently cross-border, which creates a particular need for international engagement on these issues. While we note that the Department already recognizes in its Green Paper the important role that international engagement has to play in this

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¹ Green Paper, Appendix B: Questions for Further Discussion, Question 1.

² Green Paper at 11.

³ Green Paper, Appendix B: Questions for Further Discussion, Question 2.

area,⁴ Vodafone believes that the need for international engagement cannot be emphasized enough. By way of an additional detail, we feel that horizontal initiatives such as the Alliance for Internet of Things Innovation ("AIOTI") have an important role to play here and encourage the Department to liaise with the AIOTI in particular. Vodafone also wishes to direct the Department's attention to a recent report of AIOTI in which AIOTI emphasized the importance of the geographic free-flow of data and the need for elimination of "unnecessary and unjustified restrictions to cross-border transfers."⁵ Vodafone also highlights AIOTI's view of data ownership, finding that existing law rather than enacting IoT-specific law should be applied to the issue of data ownership.⁶

With respect to the query whether the Department should engage in additional specific tasks not covered by the approach,⁷ Vodafone does have a suggestion. We note that the value of data is highlighted in a number of areas (for example in relation to contemplated work on quantifying the IoT sector).⁸ But the Green Paper does not appear to set out the Department's plans for making public sector data available to the market. Making such data publicly available can generate a number of socioeconomic benefits and we encourage the Department to consider addressing this area as part of its ongoing work.

As an example, we highlight the European Commission's plans to create a new European Open Science Cloud, which will be underpinned by the European Data Infrastructure. This will mean that public services will benefit from the creation of a platform to open their data and services, which can lead to cheaper, better, and faster interconnected public services. Researchers will also benefit from online access to the wealth of data created by public services. It is also an example of how an interoperability requirement can correctly be applied to data gathered in a "public sector" context, whereby scientific data produced by the EC's Horizon 2020 Programme will be findable, accessible, interoperable and re-usable (i.e. "FAIR" principles).

We also note that the Department identifies the relevance of workforce issues such as education and training in its Green Paper.¹⁰ Vodafone highlights the role of Privacy-by-Design training for engineers as part of this activity. Given the need for a Privacy-by-Design approach to ensure any privacy safeguards can be built into the design of IoT products and services, such training can help ensure that best practices are adopted by the engineering community. One such EU example is Pripare, which started as a support action funded from the European Union's Seventh

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⁴ See Green Paper at 11-13, 21, 40, 51.

⁵ See AIOTI Digitisation of Industry Policy Recommendations (November 2016) at 24, which can be found at http://www.aioti.org/wp-content/uploads/2016/11/AIOTI-Digitisation-of-Ind-policy-doc-Nov-2016.pdf.

⁶ Id. at 29.

⁷ Green Paper, Appendix B: Questions for Further Discussion, Question 3.

⁸ See Green Paper at 51.

¹⁰ See Green Paper at 49.

Framework Programme for research, technological development, and demonstration.¹¹ Pripare facilitates the application of a privacy and security-by-design methodology to support its practice by the ICT research community to prepare for industry practice, and fosters a risk management culture through educational material targeted to a diversity of stakeholders. The American University of Paris ("AUP"), one of the oldest American institutions of higher learning in Europe, is a partner to this program in the EU.¹²

Finally, with respect to the query regarding the next steps the Department should take in fostering the advancement of IoT,¹³ apart from the points highlighted above, we fully agree with the next steps that have been set out by the Department.

We again appreciate the Department's efforts to promote the growth of the Internet of Things, and for the opportunity to participate in this proceeding.

Respectfully submitted,

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¹¹ https://pripare.aup.edu/

¹² *Id.*

¹³ Green Paper, Appendix B: Questions for Further Discussion, Question 3.