



June 25, 2018

The Honorable Marsha Blackburn  
U.S. House of Representatives  
2266 Rayburn House Office Building  
Washington, DC 20515

The Honorable Mike Doyle  
U.S. House of Representatives  
239 Cannon House Office Building  
Washington, DC 20515

Dear Chairman Blackburn and Ranking Member Doyle:

The Telecommunications Industry Association (TIA), the leading trade association for global manufacturers, vendors, and suppliers of information and communications technology (ICT), applauds you for moving ahead to reauthorize the National Telecommunications and Information Administration (NTIA). NTIA serves a vital role in coordinating U.S. telecommunications policy in spectrum management, public safety, and other areas of national importance. Its efforts have also yielded direct benefits many times over for the American taxpayer. Meanwhile, we also appreciate the Committee's efforts to take a more holistic look at issues regarding ICT supply chain security.

In this letter, we address (1) NTIA's budget; (2) other steps the Committee could consider to strengthen NTIA's work and federal spectrum management generally; and (3) efforts to promote the security of the ICT supply chain.

### **NTIA's Budget**

NTIA is the rare government agency that directly turns a profit – of many orders of magnitude – for American taxpayers. TIA *strongly* supports the Committee's efforts to make further investments in NTIA, including an increase in the authorized level of appropriations to \$50.8 million. Increased funding would enable the agency to better carry out its mission in the following key areas:

- **Federal Spectrum Management.** Work by the Office of Spectrum Management (OSM) has enabled federal spectrum auctions, such as the AWS-3 auction of federal spectrum in 2015 that raised nearly \$45 billion for the Treasury. Moving forward, OSM's efforts are essential to ensuring the successful deployment of innovative spectrum sharing models in the 3.5 GHz band, opening additional bands in the 3.4 GHz, 1300-1350 MHz, and other bands, and to future planning.
- **Wireless Research and Engineering.** The Institute for Telecommunications Sciences (ITS) conducts cutting-edge pre-market research toward more efficient uses of spectrum. Its work on test and demonstration networks is also important as the U.S. information & communications technology industry seeks to deploy new technologies such as 5G

networks and keep pace with investments being made by European and Asian governments.

- **Security and Privacy.** While providing important guidance to the Administration on an array of technology policy issues, NTIA's Office of Policy Analysis and Development (OPAD) facilitates critical multi-stakeholder processes on emerging topics like cybersecurity vulnerability disclosure and Internet of Things updatability and patching. NTIA has played and will continue to play a key role in implementing the President's executive order on cybersecurity, particularly with respect to mitigating botnets and other automated, distributed threats.
- **Public Safety.** NTIA's Office of Public Safety Communications (OPSC) played a pivotal role in the development of FirstNet, the forthcoming interoperable national public safety broadband network. OPSC's role is essential not just for FirstNet itself, but for assisting state and local governments with their coordination and planning, or (alternatively) constructing their own public safety radio access networks.

In short, NTIA's efforts have enabled the communications services that consumers, businesses, state and local governments, public safety professionals, and the federal government all depend upon, while also yielding huge returns for taxpayers. Congress should strengthen these efforts.

### **Other Steps to Enable NTIA's Future Success**

Aside from increasing the agency's budget, the Committee should consider other ways to strengthen the agency's authority, provide it with greater flexibility, and/or enhance its ability to carry out its mission. Ideas for doing so may include the following:<sup>1</sup>

- **Creating a National Spectrum Strategy.** TIA supports the concept of creating a national spectrum strategy to help provide guidance for federal spectrum policy over the medium and long term. The strategy could include a set of principles,<sup>2</sup> a path toward achieving goals,<sup>3</sup> and could also be a living document that evolves over time.<sup>4</sup> This

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<sup>1</sup> See generally [Comments of the Telecommunications Industry Association to OSTP](#), Mar. 20, 2014 ("TIA OSTP Comments").

<sup>2</sup> See David J. Redl, [NTIA Spectrum Policy Symposium Remarks](#), June 12, 2018 ("The principles must include a commitment to balancing federal and non-federal spectrum requirements, and reflect the need to protect economic and national security. We need to ensure sufficient mechanisms exist to increase spectrum access, including through spectrum sharing, when that is the most effective approach. We need greater transparency of spectrum use. And we should promote increased collaboration between federal and non-federal stakeholders, including creative public-private partnerships.") ("Redl Symposium Remarks")

<sup>3</sup> See *id.* ("Our strategy must rely upon a flexible spectrum management regulatory model, to include standards and enforcement mechanisms that encourage spectrum efficiency and effectiveness. We also need to leverage spectrum research, development, testing and engineering processes to elevate and deploy advanced spectrum sharing tools, dual-use

would build on the Department of Defense’s Electromagnetic Spectrum Strategy developed in 2013,<sup>5</sup> and DoD has signaled that it would welcome the creation of a wider strategy across the government.<sup>6</sup>

- **Better Tracking of Spectrum Use.** A better spectrum use tracking and management process would undoubtedly encourage more efficient uses of spectrum by all users. However, achieving this objective would require more frequent and sustained engagement between government and private-sector users at a technical level. In cases of spectrum sharing, federal policy should support forums for all stakeholders to periodically exchange information to better ensure that the sharing environment is and remains workable.
- **Stronger Central Coordination.** As various spectrum-related efforts in recent years have demonstrated, a stronger level of coordination or management for federal spectrum usage may be required. Indeed, in some cases NTIA has occasionally had difficulties even obtaining current information from other departments, making it difficult for the agency to effectively respond to Administration and Congressional requests for more detailed information regarding federal use. It may be valuable to have NTIA be staffed to engage more closely with other spectrum management offices to ensure that there is greater currency to government records of use, providing greater transparency for management purposes.
- **SRF Flexibility.** TIA supports further efforts to provide agencies with appropriate flexibility to use a portion of funds from the Spectrum Relocation Fund to plan for transitions. NTIA Administrator David Redl has recently observed that some policymakers have suggested that not tying SRF funds directly to specific auction proceeds or relocations might broaden the incentive effects for federal agencies to share or otherwise re-purpose spectrum.<sup>7</sup> While Congress must ensure that funding is still

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technologies, and innovative ways to access spectrum. We need to make meaningful progress toward establishing secure, enterprise-level spectrum management tools to help us both identify areas of greater spectrum efficiency, and to manage the coordination of shared spectrum access.”)

<sup>4</sup> See [NTIA Spectrum Policy Symposium Transcript](#), June 12, 2018, at 26 (remarks of Rachael Bender, Wireless and International Advisory to FCC Chairman Ajit Pai) (“instead of setting out one goal that we have to meet, it should be kind of a living document, something that can move over time as technology evolves, as things change, so that we can keep pushing forward and we can adapt.”) (“NTIA Symposium Transcript”).

<sup>5</sup> Department of Defense, [Electromagnetic Spectrum Strategy](#), 2013.

<sup>6</sup> NTIA Symposium Transcript at 28 (remarks of Col. Frederick D. Williams, Sr. Analyst, Spectrum Policy & International Engagements, Office of the CIO, DoD) (“We love, applaud, the idea of getting after a national strategy in the DoD.”)

<sup>7</sup> See David J. Redl, [Remarks at TIA Policy Forum: Federal Spectrum Policy for the 5G Era](#), June 21, 2018 (“Redl TIA Remarks”).

available for the primary purpose of directly supporting relocations, such flexibility may also help overcome any agency resistance to “unknowns” associated with any particular transition of spectrum.

- **Re-Investing Spectrum Proceeds in R&D.** Spectrum R&D is the “seed corn” that has enabled more efficient uses of spectrum by federal and commercial users alike, resulting in macroeconomic benefits to the U.S. economy as well as direct benefits to the Treasury when more spectrum is made available for auction. To ensure that the pipeline of spectrum continues into the future, Congress should enact legislation requiring re-investment of one percent of spectrum auction proceeds into spectrum research and development efforts.<sup>8</sup>
- **Supporting Global Wireless Standards Efforts.** U.S. industry is facing significant pressure in global standards-setting forums from state-subsidized companies in other parts of the world. This is a growing problem that Congress should address through a variety of means, including allowing the use of the R&D tax credit for participation in standards-setting activities. NTIA’s Institute for Telecommunications Sciences (ITS) helps promote Administration policies in national and international standards-setting bodies,<sup>9</sup> and this Committee should consider ways to further strengthen that role to help ensure that U.S. industry can compete.
- **Commercial Alternatives for Federal Users.** For those communications capabilities that can be provided equally well by commercial providers, Congress should require agencies to consider commercial options in lieu of using their own legacy systems – options that may be more cost-effective while providing much greater flexibility in serving an agency’s mission. Indeed, any legacy uses of agency spectrum for communications purposes may need to be re-evaluated in favor of a more flexible approach that will ultimately benefit the agencies themselves.<sup>10</sup> For example, in 2013 DoD committed that it would seek to use commercial services and technologies to meet its requirements where possible.<sup>11</sup>
- **Caution on Spectrum Leasing.** TIA is cautiously open to exploration of potential spectrum leasing models, as NTIA has proposed doing in its FY19 budget. However,

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<sup>8</sup> Current spectrum auction authority expires at the end of FY2022, except for certain bands identified under the Spectrum Pipeline Act of 2015. *See* 47 U.S.C. § 309(j)(11). Direction of 1% of funds from auctions conducted beginning in 2023 to R&D may therefore potentially avoid congressional budget scoring issues that other proposals have encountered in recent years. For guidance on how funding could be directed, *see, e.g.*, TIA White Paper, [Spectrum Sharing Research and Development](#) (2014); [S. 911, 112<sup>th</sup> Cong.](#), § 224 (as reported in Senate).

<sup>9</sup> *See* Redl TIA Remarks.

<sup>10</sup> The outcomes of such re-evaluations may be different for each agency, particularly when considering certain non- “communications” uses of spectrum (radar, telemetry, etc.).

<sup>11</sup> DoD Electromagnetic Spectrum Strategy, *supra* n.5, at 7.

TIA agrees with Administrator Redl that the concept needs much more study and analysis before it could be implemented.<sup>12</sup> For example, TIA has expressed concerns in the past regarding spectrum fees – possibly a different concept from what NTIA may be studying now – since the implementation of any such fees would almost certainly not be universal, and would therefore create myriad opportunities for “market distortions” including administrative and/or legislative intervention over time. (To use an analogy, the existing problems of a massively complex tax code should not be imported into spectrum policy.) This could result in a marketplace that may not be technology-neutral, i.e., in which the government is picking technological winners and losers.<sup>13</sup>

- **Supporting NTIA’s Technical Workforce.** Nearly half of NTIA’s workforce is focused on spectrum policy issues,<sup>14</sup> and many other topics within the agency’s purview are also highly technical in nature. Ensuring that the agency is appropriately staffed with highly-qualified technical personnel, including electrical engineers with a background in spectrum issues, will be essential to ensuring that the agency can fulfill its mission in future years. The FCC recently launched a new Honors Engineer Program to address similar concerns,<sup>15</sup> and this Committee should consider similar ways to creatively ensure that NTIA has appropriate technical staffing to meet future needs.

### **Securing the ICT Supply Chain**

TIA has recently explained in its detailed comments to the FCC that supply chain security in general is a complex task that is best addressed through public-private partnerships and consensus-based industry standards.<sup>16</sup> A whole-of-government approach based upon an interagency process would be the most durable over the long term, and TIA has therefore outlined in its comments what such a process might look like, including a set of criteria for eventual use by decisionmakers.<sup>17</sup>

Also, TIA supports efforts by the U.S. government, including this committee, to address concerns regarding certain communications technology suppliers deemed to pose a national security risk. For that reason, TIA has supported the FCC’s recent proposal to restrict specific companies posing national security concerns from receiving funding through the Universal

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<sup>12</sup> See Redl TIA Remarks (“To be clear, this concept needs much more study and analysis, but I believe it is worth exploring whether it can become an additional tool for expanding access to spectrum and using it more efficiently and effectively.”).

<sup>13</sup> TIA OSTP Comments at 6.

<sup>14</sup> See Redl TIA Remarks.

<sup>15</sup> Press Release, [FCC Launches New Honors Engineering Program](#), Apr. 2, 2018.

<sup>16</sup> See [Comments of the Telecommunications Industry Association](#), filed June 1, 2018 in WC Docket No. 18-89, at 28-35 (“TIA USF Security Comments”).

<sup>17</sup> *Id.* at 80-84.

Service Fund program.<sup>18</sup> Meanwhile, Congress has already taken action with regard to certain hardware manufacturers to prohibit purchases by certain U.S. government agencies of equipment from certain companies.<sup>19</sup> Most recently, both the House and Senate versions of the FY19 National Defense Authorization Act would expand those statutory prohibitions to encompass federal procurement more broadly.<sup>20</sup>

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Thank you again for holding a hearing on these issues. For more information, please contact me at 703-907-7707 or by email at [crogers@tiaonline.org](mailto:crogers@tiaonline.org).

Best regards,



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<sup>18</sup> *Protecting Against National Security Threats to the Communications Supply Chain Through FCC Programs*, [Notice of Proposed Rulemaking](#), WC Docket No. 18-89, FCC 18-42 (rel. Apr. 18, 2018), 83 Fed. Reg. 19,196 (May 2, 2018) (“Notice”); *see also* TIA USF Security Comments (*passim*).

<sup>19</sup> *See, e.g.*, National Defense Authorization Act for Fiscal Year 2018, Pub. L. No. 115-91, div. A, § 1634, 131 Stat. 1283, 1739 (Dec. 12, 2017) (prohibiting all federal agencies from using any “hardware, software, or services developed or provided, in whole or in part,” by Kaspersky Lab); *id.* at § 1656, 131 Stat. at 1762 (barring the Department of Defense from “procur[ing] or obtain[ing], or extend[ing] or renew[ing] a contract” with Huawei or ZTE for “any equipment, system, or service” that forms a substantial component of any nuclear deterrence or homeland security mission); Commerce, Justice, Science, and Related Agencies Appropriations Act, 2013, Pub. L. No. 113-6, div. B, § 516, 127 Stat. 198, 274 (2013) (barring the Departments of Commerce and Justice, NASA, and the National Science Foundation from purchasing IT systems “produced, manufactured or assembled” by entities “owned, directed, or subsidized by the People’s Republic of China” unless the purchase is “in the national interest of the United States,” and requiring that agencies must consult with the FBI or another appropriate federal entity to assess the risk of cyberespionage or sabotage before considering purchasing any such systems).

<sup>20</sup> National Defense Authorization Act for Fiscal Year 2019, H.R. 5515, 115th Cong., div. A, § 880 ([engrossed in House](#) on May 24, 2018); National Defense Authorization Act for Fiscal Year 2019, H.R. 5515, § 6702 ([printed as passed in Senate](#), June 19, 2018).