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# The National Telecommunications and Information Administration (NTIA): An Overview of Programs and Funding

Linda K. Moore

Specialist in Telecommunications Policy

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## Summary

The National Telecommunications and Information Administration (NTIA), a bureau of the Department of Commerce, is the executive branch's principal advisory office on domestic and international telecommunications and information policies. Its mandate is to provide greater access for all Americans to telecommunications services; support U.S. efforts to open foreign markets; advise on international telecommunications negotiations; and fund research for new technologies and their applications. It is also responsible for managing spectrum use by federal agencies and, as part of this responsibility, identifying federal radio frequency spectrum that can be transferred to commercial use through the auction of spectrum licenses, conducted by the Federal Communications Commission.

The NTIA plays an important role in representing U.S. interests in the Internet internationally, including an active role in the Internet Corporation for Assigned Names and Numbers (ICANN). ICANN is an international entity that develops policies to support the Internet worldwide. NTIA actively participates in ICANN as a member of the Governmental Advisory Committee, which provides advice to ICANN. NTIA also currently contracts with ICANN to manage the Internet Assigned Numbers Authority (IANA) and to perform other duties. In March 2014, the NTIA announced its intention to relinquish its authority over ICANN to a multi-stakeholder community when its current contract expires in September 2015.

Title VI of the Middle Class Tax Relief and Job Creation Act of 2012 (P.L. 112-96) gives the NTIA responsibilities for improving public safety communications. It is required to assist the development of the First Responder Network Authority (FirstNet), created by Congress to deploy a nationwide public safety broadband network. It is also required to assist in planning for Next Generation 9-1-1 (NG 9-1-1) services, which refers to the transition to digital, Internet-based systems to replace existing analog systems, the 9-1-1 technology currently prevalent throughout the United States.

Between FY2010 and FY2011, the NTIA's budget for administration, salaries, and expenses more than doubled from \$20 million to \$41.6 million. This increase was largely attributed to its responsibilities in administering grants for broadband network deployment, as required by the American Recovery and Reinvestment Act (ARRA, P.L. 111-5). The enacted budget for FY2014 was \$46.0 million. As the project for broadband comes to a close, the NTIA has transferred its requests for appropriations to new programs. For example, the FY2015 budget request included \$7.5 million for a new Internet Policy Center. The Administration's budget request for FY2015 was \$51.0 million. The enacted amount for FY2015 is \$38.2 million.

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## Overview

The National Telecommunications and Information Administration (NTIA) is a bureau in the U.S. Department of Commerce (DOC). The NTIA frequently works with other executive branch agencies to develop and present the Administration's position on key policy matters. It represents the executive branch in both domestic and international telecommunications and information policy activities. Policy areas in which the NTIA acts as a representative of the Administration include international negotiations regarding global agreements on the Internet and spectrum management, and domestic use of spectrum resources by federal agencies.

NTIA is headed by the Assistant Secretary of Commerce for Communications and Information, who is appointed by the President and acts as a principal advisor to the President on telecommunications and information policy matters; is the principal executive branch spokesman to Congress, the industry, state and local governments, and the public on such matters; is the key coordinator of the federal government's own communication systems; and is responsible for the formulation of the nation's overall telecommunications and information policy.<sup>1</sup>

## Wireless Initiative and Broadband Deployment

As part of President Obama's Wireless Initiative, the NTIA is charged with identifying electromagnetic spectrum that might be transferred from the federal sector to commercial wireless use.<sup>2</sup> This spectrum might be auctioned as licenses for exclusive commercial use, made available for sharing between federal and commercial users, or repurposed in some other way that meets the stated goal of the Wireless Initiative to add 500 MHz of spectrum for wireless broadband.<sup>3</sup> Congress also has required the NTIA to take actions to release spectrum from federal to commercial use and to ensure the efficient use of federal spectrum.<sup>4</sup>

The NTIA has announced that it will consolidate its efforts to assist community broadband deployment under a new program, BroadbandUSA.<sup>5</sup> This supports a new initiative for expanding and improving broadband deployment, announced by the White House on January 13, 2015.<sup>6</sup> Among other steps, the NTIA also released a public-private partnership primer, which provides a

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<sup>1</sup> As described in a job posting for Executive Director of FirstNet on USAJobs, <https://www.usajobs.gov/GetJob/ViewDetails/389363200>.

<sup>2</sup> The White House, Office of the Press Secretary, "Presidential Memorandum: Unleashing the Wireless Broadband Revolution," June 28, 2010, <http://www.whitehouse.gov/the-press-office/presidential-memorandum-unleashing-wireless-broadband-revolution>; and "President Obama Details Plan to Win the Future Through Expanded Wireless Access," Fact Sheet, February 10, 2011, <http://www.whitehouse.gov/the-press-office/2011/02/10/president-obama-details-plan-win-future-through-expanded-wireless-access>.

<sup>3</sup> Spectrum is segmented into bands of radio frequencies and typically measured in cycles per second, or hertz. Standard abbreviations for measuring frequencies include kHz—kilohertz or thousands of hertz; MHz—megahertz, or millions of hertz; and GHz—gigahertz, or billions of hertz.

<sup>4</sup> P.L. 112-96, Sections 6401, 6410, and 6701.

<sup>5</sup> NTIA Blog, "NTIA Announces BroadbandUSA Effort to Assist Communities with Broadband Plans," January 13, 2015, <http://www.ntia.doc.gov/blog/2015/ntia-announces-broadbandusa-effort-assist-communities-broadband-plans>.

<sup>6</sup> The White House, Office of the Press Secretary, *Fact Sheet: Broadband That Works: Promoting Competition & Local Choice in Next-Generation Connectivity*, January 13, 2015, <http://www.whitehouse.gov/the-press-office/2015/01/13/fact-sheet-broadband-works-promoting-competition-local-choice-next-gener>.

basic introduction to a variety of partnership models for communities considering new broadband projects.<sup>7</sup>

## Grants and Public Safety

The NTIA administers some grant programs created by Congress, including the Broadband Technology Opportunities Program (BTOP).<sup>8</sup> BTOP grant projects are in the final stages of completion. The NTIA also administers a \$135 million grant program to help states plan for participation in a new, nationwide public safety broadband network required by Title VI of the Middle Class Tax Relief and Job Creation Act of 2012 (P.L. 112-96). To deploy the new network, the act established the First Responder Network Authority, or FirstNet, as an independent authority within the NTIA and assigned to the agency various responsibilities to support FirstNet.<sup>9</sup> FirstNet is funded through the Public Safety Trust Fund, established by Congress to receive revenues from auctions of certain spectrum licenses. FirstNet has access to an advance of nearly \$2 billion from the U.S. Treasury against expected proceeds of sales of spectrum licenses. Another \$5 billion in funding is authorized from additional revenues as received. These funding amounts were met by auctions conducted in 2014.<sup>10</sup> Some of the \$7 billion in funding may be used for grant programs to assist states in building radio access networks, to be determined once plans for FirstNet are finalized.

The act also provides for a grant program of \$115 million to fund improvements in 9-1-1 networks. The program is to be administered by the NTIA and the National Highway Traffic Safety Administration through an E-911 Implementation Coordination Office (ICO).

## Internet Leadership

Since 1998, the NTIA has played a key oversight role in the Internet Corporation for Assigned Names and Numbers (ICANN). ICANN is an international, not-for-profit entity that develops policies to support the Internet worldwide, notably through its coordination of the Internet naming system: the Domain Name System (DNS). ICANN is currently under contract to NTIA to manage the Internet Assigned Numbers Authority (IANA) for DNS and to perform other duties. In March 2014, the NTIA announced its intention to relinquish its existing authority over ICANN.<sup>11</sup> The current contract will expire in September 2015, although NTIA has the option of extending the contract through 2019.<sup>12</sup>

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<sup>7</sup> Broadband USA: An Introduction to Effective Public-Private Partnerships for Broadband Investments, January 2015, [http://www.ntia.doc.gov/files/ntia/publications/ntia\\_ppp\\_010515.pdf](http://www.ntia.doc.gov/files/ntia/publications/ntia_ppp_010515.pdf).

<sup>8</sup> For a discussion of BTOP grants, see CRS Report R41775, *Background and Issues for Congressional Oversight of ARRA Broadband Awards*, by Lennard G. Kruger.

<sup>9</sup> For a discussion of FirstNet requirements, see CRS Report R42543, *The First Responder Network (FirstNet) and Next-Generation Communications for Public Safety: Issues for Congress*, by Linda K. Moore.

<sup>10</sup> Auctions 96 and 97 (concluded January 2015); information at [http://wireless.fcc.gov/auctions/default.htm?job=auctions\\_home](http://wireless.fcc.gov/auctions/default.htm?job=auctions_home).

<sup>11</sup> NTIA, Newsroom, "NTIA Announces Intent to Transition Key Internet Domain Name Functions," March 14, 2014, <http://www.ntia.doc.gov/press-release/2014/ntia-announces-intent-transition-key-internet-domain-name-functions>.

<sup>12</sup> See CRS Report 97-868, *Internet Domain Names: Background and Policy Issues*, by Lennard G. Kruger.

## Appropriations and Budget Requests

For FY2015, Congress appropriated \$38.2 million for NTIA salaries and expenses. The Administration had proposed \$51.0 million. This would have been an increase of \$5 million (10.9%) over the enacted FY2014 budget amount of \$46 million. The increase was attributed by the NTIA to an increased focus on policy oversight in two key areas: formulating domestic and international policies and expanding the availability of broadband communications.<sup>13</sup> New programs identified in the budget request include a Center for Advanced Communications, a cooperative effort with the National Institute for Standards and Technology (NIST) to advance spectrum sharing and innovation. Further, the NTIA proposed \$7.5 million to fund an Internet Policy Center to provide analysis and recommendations related to all aspects of the Internet.<sup>14</sup>

In FY2010, the Public Telecommunications Facilities Program (PTFP) represented half of the NTIA’s budget appropriations. In FY2011, the total enacted budget appropriations amount for the NTIA increased by 4% to \$41.6 million, entirely for administrative expenses and salaries; funding for the PTFP was eliminated.

According to the NTIA, the increase of \$21.6 million from FY2010 to FY2011 in funding for salaries and expenses was largely attributable to the costs of administration of a \$4.7 billion program for broadband deployment, as required by the American Recovery and Reinvestment Act of 2009 (P.L. 111-5).<sup>15</sup> In FY2012 requests for funding to administer grant programs totaled \$32.3 million, 70% of the fiscal year budget request.<sup>16</sup> For FY2013, \$25.8 million in funding was designated to administer the remaining broadband grant programs, primarily BTOP. The FY2014 request for broadband grant program oversight was for \$24.7 million, roughly 40% of the total budget request.

**Table 1. NTIA Fiscal Year Appropriations 2010-2015**

(in millions of dollars)

	FY2010	FY2011	FY2012	FY2013 <sup>a</sup>	FY2014	FY2015
NTIA total	\$40.0	\$41.6	\$45.6	\$42.8	\$46.0	\$38.2
Administration, salaries and expenses	\$20.0	\$41.6	\$45.6	\$42.8	\$46.0	\$38.2
PTFP	\$20.0	0	0	0	0	0

**Source:** Annual Reports, Department of Commerce and Congressional Appropriations, as enacted.

a. Total budget authority.

The enacted budget for FY2015 eliminates \$12.3 million associated with the conclusion of the BTOP grant award program but includes up to \$3 million to provide broadband technical

<sup>13</sup> U.S. Department of Commerce, National Telecommunications and Information Administration, *FY2015 Budget as Presented to Congress*, March 2014, executive summary.

<sup>14</sup> *Ibid.*, p. 63.

<sup>15</sup> This amount was later reduced by Congress to \$4.4 billion.

<sup>16</sup> U.S. Department of Commerce, National Telecommunications and Information Administration, *FY2013 Budget as Presented to Congress*, February 2012.

assistance to communities. The FY2015 budget agreement requires the NTIA to provide at least 45 days' notice to the appropriate congressional committees regarding actions taken related to its role in ICANN or IANA, among other reporting requirements, and places constraints on spending.<sup>17</sup>

In addition to appropriations, the NTIA also receives funding from sources such as fees charged to federal agencies for spectrum management services and reimbursable projects in telecommunications technology research, as well as management fees from FirstNet. Reimbursable funding for FY2013 was \$36.3 million, of which spectrum management fees from federal agencies were \$28.1 million. The fees for FY2014 were reported as \$59.4 million and \$42.0 million, respectively. The estimate for FY2015 is \$40.6 million and \$32.0 million.<sup>18</sup>

## Programs

The NTIA fulfills many responsibilities for different constituencies. As the agency responsible for managing spectrum used by federal agencies, the NTIA often works in consultation with the Federal Communications Commission (FCC) on matters concerning spectrum access, technology, and policy. The FCC regulates private sector, state, local, and tribal spectrum use. Because many spectrum issues are international in scope and negotiated through treaty-making, the NTIA and the FCC collaborate with the Department of State in representing American interests. The NTIA also participates in interagency efforts to develop Internet policy and to ensure that Internet-focused initiatives across the government are coordinated. The NTIA and NIST have adjoining facilities on the Department of Commerce campus in Boulder, CO, where they collaborate on research projects with each other and with other federal agencies, such as the FCC.

The NTIA worked with the Rural Utilities Service in coordinating grants made through BTOP. The NTIA collaborates with NIST, the FCC, and the Department of Homeland Security (DHS) in providing expertise and guidance to grant recipients using BTOP funds to build new wireless networks for broadband communications.

As described by the NTIA,<sup>19</sup> its policies and programs are administered through

- The Office of Spectrum Management (OSM), which formulates and establishes plans and policies that ensure the effective, efficient, and equitable use of the spectrum both nationally and internationally. Through the development of long-range spectrum plans, the OSM works to address future federal government spectrum requirements, including public safety operations and the coordination and registration of federal government satellite networks. The OSM also handles the frequency assignment needs of the federal agencies and provides spectrum certification for new federal agency radio communication systems.
- The Office of Policy Analysis and Development (OPAD), which is the domestic policy division of the NTIA. OPAD supports the NTIA's role as principal adviser

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<sup>17</sup> For additional information see CRS Report R42351, *Internet Governance and the Domain Name System: Issues for Congress*, by Lennard G. Kruger.

<sup>18</sup> U.S. Department of Commerce, National Telecommunications and Information Administration, *FY2015 Budget as Presented to Congress*, March 2014, p. 43.

<sup>19</sup> See <http://www.ntia.doc.gov/about>.

- to the executive branch and the Secretary of Commerce on telecommunications and information policies by conducting research and analysis and preparing policy recommendations.
- The Office of International Affairs (OIA), which develops and implements policies to enhance U.S. companies' ability to compete globally in the information technology and communications (ICT) sectors. In consultation with other U.S. agencies and the U.S. private sector, OIA participates in international and regional fora to promote policies that open ICT markets and encourage competition.
  - The Institute for Telecommunication Sciences (ITS), which is the research and engineering laboratory of the NTIA. ITS provides technical support to the NTIA in advancing telecommunications and information infrastructure development, enhancing domestic competition, improving U.S. telecommunications trade opportunities, and promoting more efficient and effective use of the radio spectrum.
  - The Office of Telecommunications and Information Applications (OTIA), which administers grant programs that further the deployment and use of technology in America, and the advancement of other national priorities. In the past, the OTIA has awarded grants from the Public Telecommunications Facilities Program, which was terminated by Congress in FY2011. The OTIA has administered BTOP grants since 2009.
  - The Office of Public Safety Communications, which was created by the NTIA at the end of 2012 to administer some provisions of the Middle Class Tax Relief and Job Creation Act of 2012, Title VI, also known as the Spectrum Act.

For budget purposes, the category of salaries and expenses is organized into five sub-activities: Domestic and International Policies; Spectrum Management; Telecommunication Sciences Research; Broadband Programs; and Spectrum Sharing and Monitoring.<sup>20</sup>

## **Termination of the Public Telecommunications Facilities Program**

Effective FY2011, Congress terminated grant funding for the Public Telecommunications Facilities Program (PTFP). In FY2010, the program received \$20 million in funding to support broadcast and non-broadcast projects. Approximately half of the grant monies went to public radio and television stations to replace equipment. Another 25% of grant funds were awarded to bring radio and television services to unserved or underserved communities. Other awards included grants to 16 public television and radio stations to cover costs of converting from analog to digital broadcasting. These grants helped the Public Broadcasting Service to maintain and improve its critical role in the current Emergency Alert System (EAS) and new initiatives for Wireless Emergency Alerts (also known as commercial mobile alerts).<sup>21</sup> For example, the satellite communications network that supports EAS is operated by the National Public Radio, public television stations provide backup for Wireless Emergency Alerts to mobile devices, and public

<sup>20</sup> U.S. Department of Commerce, National Telecommunications and Information Administration, *FY2015 Budget as Presented to Congress*, March 2014, pp. 49-50.

<sup>21</sup> Background information on FEMA and FCC websites, such as <http://www.fema.gov/emergency-alert-system-eas>.

television and radio stations provide emergency alerts and information to otherwise unserved communities.

## Spectrum Act

The most recent legislative action to provide more spectrum for commercial services was included in provisions of Title VI of the Middle Class Tax Relief and Job Creation Act of 2012 (P.L. 112-96).<sup>22</sup> Title VI is generally referred to as the Spectrum Act, or the Public Safety and Spectrum Act.

## Public Safety

The Spectrum Act gives the NTIA responsibilities to support the First Responder Network Authority (FirstNet) in planning, building, and managing a new, nationwide, broadband network for public safety communications.<sup>23</sup> Among the act's provisions for FirstNet in planning and deploying the new network is a requirement "to promote integration of the network" with 9-1-1 call centers (usually known as Public Safety Answering Points, or PSAPS).<sup>24</sup>

Some of the auction revenues designated for the Public Safety Trust Fund are placed in the Network Construction Fund, which is to be established as an account in the Treasury. The fund is to be used by FirstNet for expenditures on construction, maintenance, and related expenses to build the nationwide network required in the act, and by the NTIA for grants to those states that qualify to build their own radio access network links to FirstNet. The NTIA is also to facilitate payments to states that participate in the deployment of the network.

The act establishes a State and Local Implementation Fund and requires the NTIA, in consultation with FirstNet, to establish grant program requirements. Grants from this fund are available to all 56 states and territories to support planning, consultation, data collection, education, and outreach activities. Grants totaling over \$116 million were awarded to 54 states and territories in FY2013.<sup>25</sup>

The NTIA has created an Office of Public Safety Communications to oversee the State and Local Implementation Fund grant process. It also has been assigned other statutory responsibilities such as developing and administering the state opt-out program. The Office will manage service-level agreements for the agency to supply administrative, technical, staffing, and other resources, as requested, to FirstNet.

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<sup>22</sup> Provisions in Title VI of the act are discussed in CRS Report R43256, *Spectrum Policy: Provisions in the 2012 Spectrum Act*, by Linda K. Moore.

<sup>23</sup> Actions taken by the NTIA in establishing and assisting FirstNet are documented in the U.S. Department of Commerce, National Telecommunications and Information Administration, *FY 2014 Budget as Presented to Congress*, April 2013, [http://www.osec.doc.gov/bmi/budget/FY14CJ/NTIA\\_FY\\_2014\\_CJ\\_Final\\_508\\_Compliant.pdf](http://www.osec.doc.gov/bmi/budget/FY14CJ/NTIA_FY_2014_CJ_Final_508_Compliant.pdf).

<sup>24</sup> P.L. 112-96, §6206 (b) (2) (c).

<sup>25</sup> NTIA press release, "More Than \$116 Million Awarded to Assist States in FirstNet Planning," September 26, 2013, <http://www.ntia.doc.gov/press-release/2013/more-116-million-awarded-assist-states-firstnet-planning>. See also NTIA Blog, "NTIA Grant Program Ensuring States are Planning for FirstNet," by Mike Dame, Program Director, State and Local Implementation Grant Program (SGLIP), December 23, 2014, <http://www.ntia.doc.gov/blog/2014/ntia-grant-program-ensuring-states-are-planning-firstnet>.

The act reestablishes the federal 9-1-1 Implementation Coordination Office (ICO) to plan for next-generation 9-1-1 systems (NG 9-1-1) and to administer a grant program of \$115 million.<sup>26</sup> Funds for the grant program will likely be available in 2015, following the successful auction of spectrum licenses intended to provide the funding. ICO is to be jointly administered by the NTIA and the National Highway Traffic Safety Administration (NHTSA). Other responsibilities of ICO include preparing a report on costs for requirements and specifications of Next Generation 9-1-1 (NG 9-1-1) services, including an analysis of costs, and assessments and analyses of technical uses. The act requires the report be prepared and submitted within one year of enactment.<sup>27</sup>

Since the NTIA has responsibilities for both ICO and FirstNet, the agency is in a position to encourage interoperability between PSAPs and first responders as they move to common IP-based platforms. NTIA might, for example, place responsibility for the agency's participation in ICO within the Office of Public Safety Communications, bolstering its ability to coordinate with FirstNet.

## **Spectrum Reallocation**

The Spectrum Act updates existing and specifies new procedures for spectrum to be reallocated from federal government to commercial use. Under the act, the NTIA is required to work with the FCC to identify radio frequency bands for release to commercial use.

The act also addresses how spectrum resources might be repurposed from federal to commercial use through auction or sharing, and how the cost of such reassignment would be defined and compensated, among other provisions. Although spectrum sharing to facilitate the transition from federal to commercial use is supported in the act's provisions, the NTIA is required to give priority to reallocation options that assign spectrum for exclusive, non-federal uses through competitive bidding.

The act requires the establishment of a Technical Panel within the NTIA to review transition plans that each federal agency must prepare in accordance with provisions in the act. The Technical Panel is required to have three members qualified as a radio engineer or technical expert. The Director of the Office of Management and Budget, the Assistant Secretary of Commerce for Communications and Information, and the Chairman of the FCC have been required to appoint one member each. A discussion and interpretation of provisions of the act as regards the technical panel and related procedural requirements such as dispute resolution have been published by the NTIA as part of the rulemaking process.<sup>28</sup>

## **Spectrum Policy**

To meet growing demand for wireless connectivity, the Administration and Congress have taken steps to increase the amount of radio frequency spectrum available for mobile services such as

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<sup>26</sup> Previous legislation for NG 9-1-1 is discussed in CRS Report R41208, *Emergency Communications: Broadband and the Future of 911*, by Linda K. Moore.

<sup>27</sup> P.L. 112-96, §6508.

<sup>28</sup> NTIA, Notice of Proposed Rulemaking, July 17, 2012, and replies, docket no. 110627357-2209-03 at <http://www.ntia.doc.gov/federal-register-notice/2012/technical-panel-and-dispute-resolution-board-nprm>.

access to the Internet.<sup>29</sup> Proposals from policy makers to use federal spectrum to provide commercial mobile broadband services include

- Clearing federal users from designated frequencies for transfer to the commercial sector through a competitive bidding system.
- Sharing federal frequencies with specific commercial users.<sup>30</sup>
- Improving the efficiency of federal spectrum use and management.<sup>31</sup>
- Using emerging technologies that allow multiple users to share spectrum as needed.<sup>32</sup>

The NTIA supports the Administration's policy goal of increasing spectrum capacity for mobile broadband by 500 MHz.<sup>33</sup> To this purpose, the NTIA, with input from the Policy and Plans Steering Group (PPSG),<sup>34</sup> has produced a 10-year plan and timetable that identifies bands of spectrum that might be available for commercial wireless broadband service. As part of its planning efforts, the NTIA prepared a "Fast Track Evaluation" of spectrum that might be made available in the near future.<sup>35</sup>

Many decisions regarding the use of federal spectrum are made with the participation of the Interdepartmental Radio Access Committee, IRAC.<sup>36</sup> IRAC membership comprises representatives of all branches of the U.S. military and a number of federal department agencies affected by spectrum management decisions.<sup>37</sup> The NTIA is also advised by the Commerce Spectrum Management Advisory Committee (CSMAC). The committee was created by the Department of Commerce in 2004 and is composed of experts from outside the federal

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<sup>29</sup> For a discussion of spectrum demand, technology, innovation, and competition, see CRS Report R43595, *Mobile Technology and Spectrum Policy: Innovation and Competition*, by Linda K. Moore.

<sup>30</sup> The Government Accountability Office (GAO) provided testimony on the topic of sharing: *Spectrum Management: Federal Government's Use of Spectrum and Preliminary Information on Sharing*, September 13, 2012, GAO-12-1018T; and a report: *Spectrum Management: Incentives, Opportunities, and Testing Needed to Enhance Spectrum Sharing*, November 14, 2012, GAO-13-7.

<sup>31</sup> The Government Accountability Office (GAO) issued a report: *Spectrum Management: NTIA Planning and Processes Need Strengthening to Promote the Efficient Use of Spectrum by Federal Agencies*, April 2011, GAO-11-352.

<sup>32</sup> The NTIA has made the development of spectrum-sharing methods a priority. Information on specific actions is at NTIA, "Spectrum Sharing," <http://www.ntia.doc.gov/category/spectrum-sharing>.

<sup>33</sup> Broadband refers here to the capacity of the radio frequency channel. A broadband channel can quickly transmit live video, complex graphics, and other data-rich information as well as voice and text messages, whereas a narrowband channel might be limited to handling voice, text, and some graphics.

<sup>34</sup> Created in response to Department of Commerce recommendations to improve spectrum efficiency through better management, see [http://www.ntia.doc.gov/legacy/reports/specpolini/factsheetspecpolini\\_06242004.htm](http://www.ntia.doc.gov/legacy/reports/specpolini/factsheetspecpolini_06242004.htm).

<sup>35</sup> NTIA, "An Assessment of Near-Term Viability of Accommodating Wireless Broadband Systems in the 1675-1710 MHz, 1755-1780 MHz, 3500-3650 MHz, and 4200-4220 MHz, 4380-4400 MHz Bands (President's Spectrum Plan Report)," November 15, 2010, <http://www.ntia.doc.gov/report/2010/assessment-near-term-viability-accommodating-wireless-broadband-systems-1675-1710-mhz-17>. See also NTIA, "Fourth Interim Progress Report on the Ten-Year Plan and Timetable and Plan for Quantitative Assessments of Spectrum Usage," June 2014, [http://www.ntia.doc.gov/files/ntia/publications/fourth\\_interim\\_progress\\_report\\_final.pdf](http://www.ntia.doc.gov/files/ntia/publications/fourth_interim_progress_report_final.pdf).

<sup>36</sup> See <http://www.ntia.doc.gov/category/irac>.

<sup>37</sup> Members are listed at <http://www.ntia.doc.gov/page/irac-functions-and-responsibilities>.

government.<sup>38</sup> The Office of Management and Budget also influences agency spectrum management through budget planning and recommendations.

## Internet Policy

Working with other stakeholders, the NTIA leads and participates in interagency efforts to develop and coordinate Internet policy. In addition, the NTIA works with other governments and international organizations to discuss and reach consensus on relevant Internet policy issues.

Along with the Executive Office of the President, the Office of the Secretary of Commerce, and department bureaus NIST and the International Trade Administration (ITA), the NTIA plays a role in the Internet Policy Task Force, created in 2010 by the Secretary of Commerce.<sup>39</sup> One of the NTIA's functions on the task force is to assist in the establishment of privacy codes of conduct on mobile application transparency and facial recognition technology.<sup>40</sup>

The NTIA is the lead executive branch agency on issues relating to the Domain Name System (DNS) and supports a multi-stakeholder approach to the coordination of the DNS to ensure the long-term viability of the Internet as a force for innovation and economic growth.

## Research

The Institute for Telecommunication Sciences (ITS), located in Boulder, CO, is the research and engineering arm of the NTIA. ITS provides core telecommunications research and engineering services to promote enhanced domestic competition and new technology deployment; advanced telecommunications and information services; foreign trade opportunities for American telecommunication firms; and more efficient use of spectrum. NIST and the NTIA have established a Center for Advanced Communications, in Boulder, Colorado. A key focus of the center is to promote interdisciplinary research, development, and testing in wireless technology and spectrum sharing for public safety and commercial broadband communications.

## Issues for the 114<sup>th</sup> Congress

The Assistant Secretary of Commerce for Communications and Information—the administrator of the NTIA—has set three major priorities for the agency for 2015.<sup>41</sup>

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<sup>38</sup> See <http://www.ntia.doc.gov/category/csmac>.

<sup>39</sup> See the Department of Commerce, Internet Policy Task Force, *Commercial Data Privacy and Innovation in the Internet Economy: A Dynamic Policy Framework*, <http://www.commerce.gov/sites/default/files/documents/2010/december/iptf-privacy-green-paper.pdf>.

<sup>40</sup> Details at <http://www.ntia.doc.gov/other-publication/2013/privacy-multistakeholder-process-mobile-application-transparency>.

<sup>41</sup> NTIA, Newsroom, “Remarks by Lawrence E. Strickling, Assistant Secretary of Commerce for Communications and Information, PLI/FCBA,” Telecommunications Policy and Regulation Institute, Washington, DC, December 4, 2014, <http://www.ntia.doc.gov/speechtestimony/2014/remarks-assistant-secretary-strickling-plifcba-telecommunications-policy-regula>.

- Promote spectrum sharing as a key part of ongoing efforts to find more spectrum for commercial wireless broadband.
- Continue to expand broadband access and adoption to help close the digital divide.
- Support and strengthen the bottom-up, consensus-based approach to Internet governance through the multi-stakeholder process.

Congress, however, is likely to focus on NTIA leadership: leadership in Internet policy—specifically its role in ICANN and IANA—and leadership in support of public safety communications.

Provisions related to the FY2015 appropriations bill (P.L. 113-235) direct the NTIA

to inform appropriate Congressional committees not less than 45 days in advance of any such proposed successor contract or any other decision related to changing NTIA’s role with respect to ICANN or IANA activities. In addition, NTIA shall submit a report to the Committees on Appropriations within 45 days of enactment of this Act regarding any recourse that would be available to the United States if the decision is made to transition to a new contract and any subsequent decisions made following such transfer of Internet governance.<sup>42</sup>

The 113<sup>th</sup> Congress, among other actions, held a hearing on NTIA’s oversight of ICANN and related activities.<sup>43</sup>

The intent of Congress, therefore, appears to be for a vigorous and probing oversight of NTIA actions regarding, especially, NTIA’s proposed relinquishment of its authority over ICANN, and whether NTIA’s contract with ICANN should be allowed to expire.

Congress, also, may likely examine the NTIA’s role in supporting public safety communications, for example, with follow-up oversight regarding the December 2014 report on FirstNet prepared by the Office of Inspector General (OIG) of the Department of Commerce.<sup>44</sup>

Members of Congress have taken some steps to gather information about the NTIA’s decision-making, planning, and performance. In response to separate requests from Congress, the Government Accountability Office is preparing reports on the planning and implementation of FirstNet, and on NTIA’s proposed transition of its authority over ICANN. In May 2014, several Senators wrote the NTIA requesting information on the status of a report on NG 9-1-1 to have been completed in spring 2013, as required by the act.<sup>45</sup> The response, in summary, was that \$1.5 million was needed to meet the act’s provisions but that funding had not been provided by

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<sup>42</sup> *Congressional Record*, December 11, 2014, Vol. 160, No. 151, Book II, p. H9342.

<sup>43</sup> Hearing, House Committee on the Judiciary, Subcommittee on Courts, Intellectual Property, and the Internet, “Should the Department of Commerce Relinquish Direct Oversight over ICANN,” April 10, 2014.

<sup>44</sup> U.S. Department of Commerce, Office of Inspector General, Office of Audit and Evaluation, *First Responder Network Authority: FirstNet Must Strengthen Management of Financial Disclosures and Monitoring of Contracts*, December 5, OIG-15-013-A, <http://www.oig.doc.gov/OIGPublications/OIG-15-013-A.pdf>.

<sup>45</sup> “Sens. Casey, Collins, King Request 911 System Update from NTIA in Wake of Timothy Davison’s Murder,” May 30, 2014, <http://www.casey.senate.gov/newsroom/releases/sens-casey-collins-king-request-911-system-update-from-ntia-in-wake-of-timothy-davisons-murder>.

Congress.<sup>46</sup> The NTIA apparently assumed that the funding for ICO would be provided from the NG 9-1-1 grant program. A request for separate funding was presented to Congress in the FY2013 and FY2015 proposed budgets for NHTSA. NHTSA is co-chair of ICO and has in the past had a role in 9-1-1 advocacy and research activities, as part of the Department of Transportation’s Intelligent Transportation Systems Research program.

## **OIG Report on FirstNet**

Criticism by a member of the board of FirstNet, in April 2013—regarding a lack of transparency in information provided to the board, and other issues—led to a review of practices by the OIG. The primary focus of the review had two main objectives, to determine whether the Department of Commerce (DOC)

- Had adequate processes in place to ensure that FirstNet Board members properly filed financial disclosures and identified potential conflicts of interest.
- Used appropriate contracting processes and requirements.

The overall finding is that some monitoring procedures were inadequate, including, for example, a finding that “FirstNet contracting practices lacked transparent award competition, sufficient oversight of hiring, adequate monitoring, and procedures to prevent erroneous costs....”<sup>47</sup>

In its review, the OIG looked at the roles of the NTIA, the DOC Office of General Counsel, and two agencies within DOC that were assigned direct responsibilities to assist FirstNet; the Bureau of Census and NIST were asked to award and manage contracts with outside entities to provide assistance to FirstNet. The OIG did not specifically review activities of the NTIA Office of Public Safety Communications, created to assist FirstNet with administrative tasks, including staffing.

The OIG review determined that nearly \$11 million had been inappropriately spent, much of it going for consulting work that did not meet contractual definitions of deliverables. The OIG referred to this consulting work as “work products” and questioned the expenditures. The DOC responded that it conducted relevant contracting activities in accordance with federal procurement laws and regulations and monitored performance, and that the contracts produced “first-rate feasibility research, technical analysis, strategic planning, and outreach services from highly specialized consultants, whose work product has laid the groundwork for executing FirstNet’s mission.”<sup>48</sup>

The OIG made recommendations to the Secretary, the General Counsel, the Chair of FirstNet, and the DOC’s Senior Procurement Official regarding various procedures and responsibilities. A joint response from FirstNet, the NTIA, and the General Counsel concurred with the specific recommendations from the OIG, although not all the findings. In general, they defended their actions in the context of unique requirements and time constraints in setting up FirstNet.

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<sup>46</sup> Joint letter from David L. Strickland, Administrator, NHTSA, and Lawrence J. Strickling, NTIA, to Senator Robert P. Casey, Jr., June 16, 2014, “funding for the new grant program and other activities called for in the legislation will not be available to the agencies until after many other statutory funding priorities are met....”

<sup>47</sup> Ibid., cover memorandum.

<sup>48</sup> Ibid., p. 36.

The OIG review covered a limited range of issues linked to oversight procedures. Although it did not go into detail, the OIG noted “inconsistent administration”<sup>49</sup> and several instances of significant time lags in the performance of DOC officials. For example, “6 months after the Board began regular meetings, senior NTIA and Office of General Counsel officials were still debating [the monitoring] of potential conflicts of interest.”<sup>50</sup> OIG found that most of the lapses occurred in the year after the FirstNet board held its first official meeting in September 2012. The review observed that “neither a business plan nor a network plan were completed or delivered to FirstNet during the 1-year performance period of the contracts....”<sup>51</sup>

## Highlights of Recent Progress by FirstNet

Congress may choose to consider whether achievements recently identified by FirstNet meet expectations for progress toward achieving a self-sustaining nationwide network with the levels of coverage and service identified in the act.

The planning vehicle that has been shared with the public is an executive summary of a “Roadmap,”<sup>52</sup> adopted by the FirstNet board in March 2014.<sup>53</sup> The Roadmap focuses on milestones needed to develop a definitive business plan and complete state-based plans. The milestones are

- staff and resource the organization;
- complete an open, transparent, and complete process for comprehensive network proposals based upon FirstNet LTE performance requirements, operating standards, and certified devices;
- complete an open, transparent, and competitive process for network equipment and services proposals based on detailed technical requirements, resulting in multiple awards that could supplement or substitute for all or part of a comprehensive network proposal;
- in conjunction with each of the comprehensive network and network equipment and services processes, obtain proposals for covered leasing agreements that will provide value for our excess network capacity;
- complete testing and validation of critical features and functionality of the network;
- conduct state outreach and complete consultations;<sup>54</sup> and
- review aggregated information to determine pricing for approval by the NTIA.

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<sup>49</sup> Ibid., p. 5.

<sup>50</sup> Ibid., p. 6.

<sup>51</sup> Ibid., p. 12.

<sup>52</sup> “FirstNet Program Roadmap Executive Summary,” at [http://firstnet.gov/sites/default/files/FirstNet%20Program%20Roadmap%20Executive%20Summary\\_03112014.pdf](http://firstnet.gov/sites/default/files/FirstNet%20Program%20Roadmap%20Executive%20Summary_03112014.pdf).

<sup>53</sup> FirstNet News, “FirstNet Board of Directors Meets on Strategic Roadmap,” March 11, 2014, <http://www.firstnet.gov/news/firstnet-board-directors-meets-strategic-roadmap>.

<sup>54</sup> According to information supplied by the NTIA to CRS on January 12, 2015, FirstNet is conducting consultations that are broader than just the states, and the Roadmap has been modified to reflect this action.

At the June 2014 meeting<sup>55</sup> of the FirstNet board the following actions in support of the Roadmap were announced:

- The charter for the Public Safety Advisory Committee (PSAC) was formally adopted. By-laws for the PSAC, required by the act, were adopted at the organizing meeting of the First Net Board of Directors on September 25, 2012.<sup>56</sup> There are no requirements in the statute as to the composition of the committee.
- The process for compliance with the National Environmental Policy Act was approved.

In September 2014, the board approved resolutions “designed to generate valuable perspectives from public safety, industry, and the general public on important foundational issues regarding the development of the network.” At the same meeting, the board approved a FY2015 budget for FirstNet, not to exceed \$120 million. At a subsequent meeting,<sup>57</sup> the Finance Committee approved obligations of \$86.2 million, including up to \$42.5 million for a comprehensive Request for Proposal (RFP) and some network development activities; \$22.3 million on consultation, planning, and outreach activities; and up to \$21.4 million on FirstNet organizational infrastructure, project support, and administrative functions. Development of the RFP and consultation programs with states were identified as the “main thrusts” of activities for FY2015.

The Roadmap established four milestones to reach within a year. Actions taken are in brackets.

- Initiate public notice and comment on certain program procedures, policies, and statutory interpretations. [*Public Notice on Statutory Interpretations*,<sup>58</sup> issued September 2014.]
- Release draft request for comprehensive network proposals for offer or comments. [“*Comprehensive Network Request for Information and Statement of Objectives*,”<sup>59</sup> issued September 2014.]
- Release draft requests for certain network equipment and services proposals for offer or comments.
- Begin formal state consultations. [The first consultation was held with the State of Maryland, July 2014.]<sup>60</sup>

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<sup>55</sup> FirstNet News, “FirstNet Moves Forward on Strategic Program Roadmap in Open Board Meeting,” June 3, 2014, <http://www.firstnet.gov/news/firstnet-moves-forward-strategic-program-roadmap-open-board-meeting>.

<sup>56</sup> Board Resolution 1, By-Laws, [http://www.ntia.doc.gov/files/ntia/publications/firstnet\\_resolution\\_no.\\_1\\_on\\_bylaws\\_adopted\\_9.25.12.pdf](http://www.ntia.doc.gov/files/ntia/publications/firstnet_resolution_no._1_on_bylaws_adopted_9.25.12.pdf).

<sup>57</sup> FirstNet News, “FirstNet Finance Committee Gives Go-Ahead to Fund Key RFP, Consultation Activities in FY15,” <http://www.firstnet.gov/news/firstnet-finance-committee-gives-go-ahead-fund-key-rfp-consultation-activities-fy15>.

<sup>58</sup> Published in the *Federal Register*, September 24, 2014, [http://www.ntia.doc.gov/files/ntia/publications/fr\\_firstnet\\_rfc\\_09242014.pdf](http://www.ntia.doc.gov/files/ntia/publications/fr_firstnet_rfc_09242014.pdf).

<sup>59</sup> *Request for Information for Comprehensive Network Solution(s)*, September 17, 2014, <http://www.firstnet.gov/sites/default/files/Request%20for%20Information%20for%20Comprehensive%20Network%20Solutions.pdf>; posted on FedBizOpps.gov, <https://www.fbo.gov/index?s=opportunity&mode=form&id=291b788f075a806550ca9c19955793a8&tab=core&tabmode=list&=>.

<sup>60</sup> FirstNet News, “FirstNet Holds First State Plan Consultation Meeting Maryland,” July 29, 2014, <http://www.firstnet.gov/news/firstnet-holds-first-state-plan-consultation-meeting-maryland>.

An update of the Roadmap and other activities, including additional information on the FY2015 budget, was provided on September 17, 2014, by FirstNet Acting General Manager, T. J. Kennedy.<sup>61</sup>

## **Author Contact Information**

Linda K. Moore  
Specialist in Telecommunications Policy  
lmoore@crs.loc.gov, 7-5853

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<sup>61</sup> “Strategic Roadmap Management Update,” [http://www.firstnet.gov/sites/default/files/firstnet-strategic-roadmap-management-update\\_0.pdf](http://www.firstnet.gov/sites/default/files/firstnet-strategic-roadmap-management-update_0.pdf).