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# The National Telecommunications and Information Administration (NTIA): Issues for the 113<sup>th</sup> Congress

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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. NTIA also manages the distribution of funds for several key grant programs. Its role in managing radio frequency spectrum allocated for federal use includes monitoring and resolving questions regarding usage, causes of interference, and other questions. It shares responsibilities with the Federal Communications Commission to identify federal spectrum that can be transferred to commercial use through the auction of spectrum licenses.

With the passage of the Middle Class Tax Relief and Job Creation Act of 2012 (P.L. 112-96), in February 2012, Congress has given the NTIA new responsibilities in spectrum management and the support of public safety initiatives. The 113<sup>th</sup> Congress may wish to review the NTIA's performance in meeting its obligations under the act. Many of the NTIA's responsibilities are shared with other agencies. Policy makers may wish to consider if some of these shared obligations might be effectively and efficiently transferred to its partners, allowing the NTIA to focus on communications policies that are considered by many to be key to future economic growth and development.

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## Introduction

The National Telecommunications and Information Administration (NTIA) is one of 12 bureaus 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 NTIA acts as the 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.<sup>1</sup> In recent years, one of the responsibilities of NTIA has been to oversee the transfer of some radio frequencies from the federal domain to the commercial domain. Many of these frequencies have subsequently been auctioned to the commercial sector and the proceeds paid into the U.S. Treasury. As part of President Obama's Wireless Initiative, the NTIA is charged with identifying up to 500 MHz of electromagnetic spectrum that might be transferred from the federal sector to commercial wireless use.<sup>2</sup>

The NTIA administers some grants programs created by Congress, including—at present—the Broadband Technology Opportunities Program (BTOP)<sup>3</sup> and the Public Safety Interoperable Communications (PSIC) grant program.<sup>4</sup> These programs are in the final stages of completion. As required by the Middle Class Tax Relief and Job Creation Act of 2012 (P.L. 112-96), the NTIA is in the process of establishing requirements for a \$135 million grant program to help states plan for participation in a new, nationwide public safety broadband network. To deploy the new network, the act established the First Responder Network Authority, or FirstNet, within the NTIA and assigned the agency various responsibilities to support FirstNet.<sup>5</sup> FirstNet will be self-funded, initially receiving up to \$2 billion from proceeds of sales of spectrum licenses, with another \$5 billion in auction proceeds expected.

## Funding

Enacted legislation for FY2012 has provided \$45.6 million to the NTIA for salaries and expenses, an increase over the previous year of 9.6% but 18.4% less than requested by the Administration. The Administration had requested \$55.8 million for Salaries and Expenses for FY2012, an increase of \$14.3 million over FY2011-enacted appropriations of \$41.6 million. The Administration request for appropriations represented a significant increase over the \$21.8 million requested for Salaries and Expenses for FY2010 and the \$19.999 million appropriated for

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<sup>1</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>2</sup> The White House, Office of the Press Secretary, "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> 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>4</sup> Federal grants for emergency communications is discussed in CRS Report R41842, *Funding Emergency Communications: Technology and Policy Considerations*, by Linda K. Moore.

<sup>5</sup> Measures in the act that apply to public safety are covered in CRS Report R42543, *The First Responder Network and Next-Generation Communications for Public Safety: Issues for Congress*, by Linda K. Moore.

that category in FY2010. According to the NTIA, the increase is attributable to the costs of administration and oversight of a \$4.4 billion program for broadband technologies and deployment mapping, as required by the American Recovery and Reinvestment Act of 2009 (ARRA, P.L. 111-5). Total requests for all oversight programs administered by the NTIA totaled \$32.3 million for FY2012. In addition, the Administration requested new funding for the NTIA of \$1.7 million to support efforts to foster new wireless broadband technologies and of \$1.0 million for its Internet Innovation initiative to address Internet-based privacy principles.

The FY2013 Continuing Resolution (P.L. 112-175) for appropriations, in effect until March 27, 2013, maintains the NTIA budget at FY2012 levels. For FY2013, the Administration proposes \$46.9 million for NTIA salaries and expenses. This is an increase of 3.0% over the enacted FY2012 budget amount of \$45.6 million. For FY2013, the Senate Committee on Appropriations reported the amount requested by the Administration. The House-passed appropriation is \$45.6 million for FY2013, the amount enacted for FY2012. Based on staffing distribution, the NTIA's FY2013 budget estimate, by activity, proposes: for Domestic and International Policies, a funding increase of \$0.9 million and five additional FTEs; for Management, increases in funding of \$0.6 million to cover an additional five FTEs; for Broadband Programs, an increase of nearly \$1 million for salaries and expenses and a decrease of four FTEs; for Telecommunications Sciences Research, a decrease in expenditures of \$1.9 million and a reduction of personnel of seven FTEs. The Administration's request for FTE personnel for programs covered by the agency's budget authority is estimated at 898 for FY2013.

**Table I. NTIA: Fiscal Year Appropriations 2007-2012**  
(in millions of dollars)

Funding	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012
NTIA Total	\$39.8	\$36.3	\$39.2	\$40.0	\$41.6	\$45.6
Administration, salaries and expenses	\$19.8	\$17.5	\$19.2	\$20.0	\$41.6	\$45.6
PTFPC <sup>a</sup>	\$20.0	\$18.8	\$20.0	\$20.0	0	0

**Source:** Annual Reports, Department of Commerce and Congressional Appropriations, as Enacted.  
Appropriations for ongoing grant programs are not included.

- a. The grant program for the Public Telecommunications Facilities, Planning and Construction (PTFPC) program was terminated by Congress in FY2011.

The NTIA also receives funding from sources such as fees charged to federal agencies for spectrum management services. In FY2011, NTIA funding sources other than appropriated amounts totaled \$46.5 million. The amount for FY2012 is \$58.0 million. The estimated amount for FY2013 is \$37.3 million. Spectrum management fees from federal agencies is estimated at \$28.7 million for FY2013.<sup>6</sup>

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<sup>6</sup> U.S. Department of Congress, National Telecommunications and Information Administration, FY2013 Budget as Presented to Congress, February 2012.

## 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. NTIA also participates in interagency efforts to develop Internet policy.<sup>7</sup> The NTIA and the National Institute of Standards (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 loans and grants made through BTOP and with the Department of Homeland Security (DHS) in overseeing grants made through the PSIC grants program. NTIA collaborates with NIST, DHS, and the FCC in providing expertise and guidance to public safety agencies using PSIC or BTOP funds to build new wireless networks for broadband communications.

As described by the NTIA,<sup>8</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 NTIA. OPAD supports NTIA's role as principal adviser 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 NTIA. ITS provides technical support to NTIA in advancing telecommunications and information infrastructure development,

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<sup>7</sup> For background information on NTIA's role in U.S. Internet policy, see CRS Report 97-868, *Internet Domain Names: Background and Policy Issues*, by Lennard G. Kruger.

<sup>8</sup> See <http://www.ntia.doc.gov/about>.

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 program supported new construction for public broadcasting stations and other organizations.
- 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.

In addition to six line offices, the NTIA also supports four staff offices.

## Terminated and Expiring Grant Programs

In 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>9</sup> For example the satellite communications network that supports EAS is operated by the National Public Radio, public television stations provide back-up for Wireless Emergency Alerts to mobile devices, and public television and radio stations provide emergency alerts and information to otherwise unserved communities. In FY2010, the 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; the resources for the PTFP were transferred to administrative expenses and salaries. Much of these transferred funds were applied to the management of grant programs required by the ARRA.<sup>10</sup>

ARRA grant programs administered by the NTIA include the State Broadband Initiative and the Broadband Technology Opportunity Program (BTOP). In accordance with requirements in the act, all grants were awarded by the end of FY2010. The NTIA's primary role during 2013 is monitoring and oversight of funded programs as they near completion.

Similarly, PSIC grant awards were largely completed by the end of FY2012 and are in the process of being wound down.

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<sup>9</sup> Background information on FEMA and FCC websites, such as <http://www.fema.gov/emergency-alert-system-eas>.

<sup>10</sup> See CRS Report R41775, *Background and Issues for Congressional Oversight of ARRA Broadband Awards*, by Lennard G. Kruger.

## Spectrum Act

The most recent legislative action to provide more spectrum for commercial services were provisions included in Title VI of the Middle Class Tax Relief and Job Creation Act of 2012 (P.L. 112-96).<sup>11</sup> Title VI is generally referred to as the Spectrum Act or the Public Safety and Spectrum Act. The act has updated existing and specified 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 specific bands for auction.

The NTIA will also be responsible for collecting auction proceeds and making distributions from a Public Safety Trust Fund that remains in effect through FY2022. Most of the proceeds from auctions of licenses in designated spectrum as specified in the act are to be deposited directly into the Public Safety Trust Fund, with these proceeds appropriated for purposes defined in the act.

## Public Safety

The Spectrum Act has given the NTIA responsibilities to create and support FirstNet in planning, building and managing a new, nationwide, broadband network for public safety communications.<sup>12</sup> The act requires the NTIA, in consultation with FirstNet, to establish grant program requirements for a State and Local Implementation Fund. The NTIA is also to facilitate payments to states that participate in the deployment of the network. Separately, the NTIA will administer grants and spectrum access for states that do not participate directly in the national network and that receive permission from the FCC to build the state's part of the FirstNet network. In compliance with the act's deadline for setting up the Fund, the NTIA has published initial programmatic requirements under which it will award grants.<sup>13</sup>

The NTIA has created an Office of Public Safety Communications to oversee the State and Local Implementation Fund grant process. The new office will also help FirstNet with procurement issues. The Office will manage service-level agreements for the agency to supply administrative, technical, staffing, and other resources, as requested, to FirstNet.

The act also re-establishes the federal 9-1-1 Implementation Coordination Office (ICO) to advance planning for next-generation systems (NG 9-1-1) and to administer a grant program.<sup>14</sup> ICO is to be jointly administered by the NTIA and the National Highway Traffic Safety Administration. ICO is to provide matching grants for improvements in the implementation of 911 emergency services, and other purposes from a grant program authorized at \$115 million. Based on the act's prioritized plan for funding programs with spectrum license auction revenue, the funds for the grant program will be made available only after \$27.635 billion of available auction revenue has been applied to other purposes. ICO, in consultation with NHTSA and DHS,

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<sup>11</sup> Provisions in Title VI of the act are discussed in CRS Report R40674, *Spectrum Policy in the Age of Broadband: Issues for Congress*, by Linda K. Moore.

<sup>12</sup> Actions taken by the NTIA in establishing and assisting FirstNet are documented at <http://www.ntia.doc.gov/category/public-safety>.

<sup>13</sup> *Federal Register*, Vol. 77, No. 162, August 21, 2012, Notice, <http://www.ntia.doc.gov/federal-register-notice/2012/development-programmatic-requirements-state-and-local-implementation-gr>.

<sup>14</sup> Previous legislation and for NG9-1-1 is discussed in CRS Report R41208, *Emergency Communications: Broadband and the Future of 911*, by Linda K. Moore.

is to report on costs for requirements and specifications of NG 9-1-1 services, including an analysis of costs, and assessments and analyses of technical uses.

The act also requires FirstNet to promote integration of the nationwide public safety broadband network with Public Safety Answering Points (PSAPs are 9-1-1 call centers). Since the NTIA has responsibilities for both ICO and FirstNet, the agency may be in a position to improve interoperability between PSAPs and First Responders.

## Spectrum Reallocation

The act has addressed 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.<sup>15</sup> Although spectrum sharing to facilitate the transition from federal to commercial use is supported in the act's provisions, the NTIA has been required to give priority to reallocation options that assign spectrum for exclusive, non-federal uses through competitive bidding.<sup>16</sup>

The act has required 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.<sup>17</sup> 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.<sup>18</sup> 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>19</sup>

## Spectrum Policy

The Administration and Congress have taken steps to increase the amount of radio frequency spectrum available for mobile services such as access to the Internet. The increasingly popular smart phones and tablets require greater spectrum capacity (broadband) than the services of earlier generations of cell phones. 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.
- Improving the efficiency of federal spectrum use and management.<sup>20</sup>

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<sup>15</sup> P.L. 112-96, Section 6701 (a) (1) (D) “(3).

<sup>16</sup> P.L. 112-96, Section 6701 (a) (3) “(j).

<sup>17</sup> P.L. 112-96, Section 6701 (a) (3) “(h).

<sup>18</sup> P.L. 112-96, Section 6701 (a) (3) “(h) “(3) “(B).

<sup>19</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>.

<sup>20</sup> The Government Accountability Office (GAO) issued a report: *Spectrum Management: NTIA Planning and (continued...)*

- Using emerging technologies for network management to allow multiple users to share spectrum as needed.

The NTIA supports the Administration's policy goal of increasing spectrum capacity for mobile broadband by 500 MHz.<sup>21</sup> To this purpose, NTIA, with input from the Policy and Plans Steering Group (PPSG),<sup>22</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>23</sup> Specific recommendations were to make available 15 MHz of spectrum from frequencies between 1695 MHz and 1710 MHz, and 100 MHz of spectrum within bands from 3550 MHz to 3650 MHz. The fast track evaluation also recommended studying two 20 MHz bands to be identified within 4200-4400 MHz for possible repurposing, and placement for consideration of this proposal on the agenda of the World Radio Conference (WRC-2015) scheduled for 2015-2016. The World Radio Conference, held approximately every four years, is the primary forum for negotiating international treaties on spectrum use.

The NTIA also led an evaluation process regarding commercial use of 95 MHz of spectrum in the 1755-1850 MHz band, currently used by federal agencies.<sup>24</sup> These frequencies are valued for commercial use in part because they are among those designated for international harmonization of advanced wireless technology. Harmonization enables important economies of scale in the production of wireless mobile equipment by providing global markets for standardized products. Federal users are completing the transfer of spectrum to commercial license-holders in the 1710-1755 MHz band, also designated for harmonization.<sup>25</sup>

Many decisions regarding the use of federal spectrum are also made through the Interdepartmental Radio Access Committee, IRAC.<sup>26</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>27</sup> The NTIA is advised regarding broader spectrum policy issues by the Commerce Spectrum Advisory Committee (CSMAC), a Federal Advisory

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(...continued)

*Processes Need Strengthening to Promote the Efficient Use of Spectrum by Federal Agencies*, April 2011, GAO-11-352.

<sup>21</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>22</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>23</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, at <http://www.ntia.doc.gov/report/2010/assessment-near-term-viability-accommodating-wireless-broadband-systems-1675-1710-mhz-17>.

<sup>24</sup> U.S. Department of Commerce, *An Assessment of the Viability of Accommodating Wireless Broadband in the 1755-1850 MHz Band*, March 2012, at [http://www.ntia.doc.gov/files/ntia/publications/ntia\\_1755\\_1850\\_mhz\\_report\\_march2012.pdf](http://www.ntia.doc.gov/files/ntia/publications/ntia_1755_1850_mhz_report_march2012.pdf).

<sup>25</sup> Following procedures required by the Commercial Spectrum Enhancement Act of 2004 (P.L. 108-494, Title II), the FCC auctioned licenses for these frequencies in 2006. The auction attracted nearly \$13.9 billion in completed bids. The cost to move federal agencies to new spectrum locations was set at almost \$936 million. Additional information is in CRS Report RS21508, *Spectrum Management and Special Funds*, by Linda K. Moore.

<sup>26</sup> See <http://www.ntia.doc.gov/category/irac>.

<sup>27</sup> Members are listed at <http://www.ntia.doc.gov/page/irac-functions-and-responsibilities>.

Committee. The committee was created in 2004 and is comprised of experts from outside the federal government.<sup>28</sup> The Office of Management and Budget influences agency spectrum management through budget planning and recommendations.

The NTIA's administration of federal spectrum resources was criticized in a 2011 report from the Government Accountability Office (GAO), on the agency's planning and processes.<sup>29</sup> The GAO's findings noted that the NTIA had scaled back forward-looking strategic planning activities and that its primary spectrum management operations do not focus on government-wide needs.

## Shared Spectrum

Working through the PPSG, the NTIA studied federal spectrum use by more than 20 agencies with over 3,100 separate frequency assignments in the 1755-1850 MHz band.<sup>30</sup> After evaluating the multiple steps involved in transferring current uses and users to other frequency locations, the NTIA concluded that it would cost \$18 billion to clear federal users from all 95 MHz of the band. Based on this assessment, the report included recommendations for seeking ways for federal and commercial users to share many of the frequencies, although some frequencies were identified to be cleared for auction to the private sector. The assumptions for the estimates of the cost were challenged in a congressional hearing, leading to a request to the GAO to examine the process.<sup>31</sup> In particular, the NTIA was criticized by some members of the committee for not separately evaluating the 1755-1780 MHz band, which might be auctioned separately with another spectrum band already available for commercial use. At the hearing, the GAO provided testimony regarding its preliminary findings on spectrum sharing<sup>32</sup> and followed up with a report.<sup>33</sup> Both the hearing and the report indicated that spectrum sharing technology and policies were largely undeveloped. Some of the options to encourage sharing spectrum, as identified by the GAO, include considering spectrum usage fees to provide economic incentive for more efficient use and sharing; identifying more spectrum that could be made available for unlicensed use; encouraging research and development of technologies that can better enable sharing; and improving and expediting regulatory processes related to sharing. Given the challenges for implementing spectrum sharing policies, the GAO found that further study by the NTIA and the FCC was needed.

The President's Council of Advisers on Science and Technology (PCAST) has endorsed increasing spectrum capacity through new technology that increases efficiency and allows for shared use of spectrum resources. In a report, *Realizing the Full Potential of Government Held Spectrum to Spur Economic Growth*, the council has proposed that up to 1000 MHz of additional

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<sup>28</sup> See <http://www.ntia.doc.gov/category/csmac>.

<sup>29</sup> GAO, Spectrum Management: NTIA Planning and Processes Need Strengthening to Promote the Efficient Use of Spectrum by Federal Agencies, April 2011, GAO-11-352 at <http://gao.gov/products/GAO-11-352>.

<sup>30</sup> U.S. Department of Commerce, *An Assessment of the Viability of Accommodating Wireless Broadband in the 1755-1850 MHz Band*, March 2012, at <http://www.ntia.doc.gov/report/2012/assessment-viability-accommodating-wireless-broadband-1755-1850-mhz-band>.

<sup>31</sup> Hearing, House of Representatives, Committee on Energy and Commerce, Subcommittee on Communications and Technology, "Creating Opportunities Through Improved Government Spectrum Efficiency," September 13, 2012.

<sup>32</sup> GAO, Spectrum Management: Federal Government's Use of Spectrum and Preliminary Information on Spectrum Sharing, September 13, 2012, GAO-12-1018T at <http://www.gao.gov/products/GAO-12-1018T>.

<sup>33</sup> GAO, Spectrum Management: Incentives, Opportunities, and Testing Needed to Enhance Spectrum Sharing, November 14, 2012, GAO-13-7 at <http://gao.gov/products/GAO-13-7>.

spectrum capacity could be provided through shared access between the federal government and commercial providers.<sup>34</sup> The report identified existing technologies for sharing that could be used as platforms. The report's recommendations included the development of new spectrum policies based on spectrum-sharing. The report stated that "the norm for spectrum use should be sharing," and that the White House should take actions to advance toward this goal. If the Administration's policy is to pursue the recommendations of the PCAST report, the further studies of spectrum-sharing options suggested by the GAO might inform such an initiative.

## Internet Policy

Working with other stakeholders NTIA leads and participates in interagency efforts to develop Internet policy. In addition, 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), NTIA plays a role in the Internet Policy Task Force, created in 2010 by the Secretary of Commerce.<sup>35</sup> One of NTIA's functions on the Task Force is to assist in the establishment of a code of conduct on mobile application transparency.

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.<sup>36</sup>

## Research

The Institute for Telecommunication Sciences, located in Boulder, CO, is the research and engineering arm of 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. Current areas of focus include:

- Research, development, testing, and evaluation to foster nationwide public safety communications interoperability.
- Test and Demonstration Networks to facilitate accelerated development of standards for emerging communications devices.

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<sup>34</sup> Recommendations of the President's Council of Advisers on Science and Technology, *Realizing the Full Potential of Government-Held Spectrum to Spur Economic Growth*, released July 20, 2012, [http://www.whitehouse.gov/sites/default/files/microsites/ostp/pcast\\_spectrum\\_report\\_final\\_july\\_20\\_2012.pdf](http://www.whitehouse.gov/sites/default/files/microsites/ostp/pcast_spectrum_report_final_july_20_2012.pdf).

<sup>35</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>36</sup> See CRS Report R42351, *Internet Governance and the Domain Name System: Issues for Congress*, by Lennard G. Kruger.

- Analysis and resolution of interference issues.
- Development and testing of secure federal electronic record repositories.

There are a number of works in progress that could benefit public safety communications. One example is the development and acceptance of international standards for public safety communications. Like the commercial sector, public safety could benefit from global economies of scale if there are international standards. ITS and NIST are providing important leadership in developing global standards for public safety. For FY2013, however, NTIA proposes cutting funding and staff for ITS.

## **Issues for the 113<sup>th</sup> Congress**

According to the NTIA,<sup>37</sup> anticipated activities during 2013 focus on:

- Completing broadband grant projects and leveraging these investments through disseminating best practices and “maximizing the capacity-building power of the state broadband offices funded by the State Broadband Initiative.”
- Conclusion of multi-stakeholder work on a code of conduct for mobile applications privacy, an effort undertaken by the Internet Policy Task Force.
- New activities for spectrum sharing and the release of 500 MHz of spectrum from federal to commercial use, including completing CSMAC working group activities.
- Preparation of requirements for the State and Local Implementation Grant Program as part of its support of FirstNet and “significant consultation work with these jurisdictions and other key stakeholders.”

Many of the NTIA’s functions are performed in conjunction with other agencies. The NTIA’s role as liaison may lead to overlapping responsibilities, leading to duplication of effort across departments and agencies. At the same time, rapid advances in communications technology have changed the mission of the NTIA in areas such as spectrum policy. As it reviews communications and spectrum policy, the 113<sup>th</sup> Congress may also choose to consider if the current structure of the NTIA might be better aligned to its new responsibilities.

For purposes of oversight, Congress may—for example—choose to examine the efficacy of the NTIA’s spectrum management activities, and to evaluate the agency’s compliance with the Spectrum Act (P.L. 112-96, Title VI). Oversight might cover requirements of the act regarding the transfer of spectrum from federal to commercial use and the act’s provisions for public safety.

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<sup>37</sup> NTIA Blog, “NTIA Recap of 2012 and Look Ahead to 2013,” December 27, 2012, <http://www.ntia.doc.gov/blog/2012/ntia-recap-2012-and-look-ahead-2013>.

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