*National Telecommunications and Information Administration*

# NTIA Must Continue to Improve its Program Management and Pre-Award Process for its Broadband Grants Program

*Office of Audit and Evaluation*

APRIL 8, 2010

**MEMORANDUM FOR:**     Lawrence E. Strickling
                        Assistant Secretary for
                        Communications and Information

**FROM:**               Todd J. Zinser

**SUBJECT:**            *NTIA Must Continue to Improve its Program Management and*
                        *Pre-Award Processes for the Broadband Technology*
                        *Opportunities Program*
                        Final Report No. ARR-19842

We are providing you with our final report on our review of the National Telecommunications and Information Administration's (NTIA) efforts to implement an effective program office and a fair and effective pre-award process for the Broadband Technology Opportunities Program (BTOP).

We discussed our findings with you on January 6, 2010, and provided you with a draft report on March 12. We found that NTIA needs to take prompt actions to improve the management and pre-award processes to assure that grant awards are made by the statutory deadline of September 30, 2010. While NTIA has taken a number of steps to address these issues, including obtaining additional personnel to support the BTOP team, strengthening the documentation supporting its decision making, and implementing system enhancements to facilitate application processing, additional efforts are needed.

Your April 1, 2010, response to our draft report notes that NTIA is taking appropriate action and has already begun to address recommendations in the report. We summarize the response in our report and have included it in its entirety as appendix B.

Please provide us with an action plan that responds to all of the report recommendations within 60 days from the date of this memorandum. Please also accept our thanks to the BTOP team for the courtesies shown to us during our fieldwork. If you have any questions, please contact Ann Eilers at (202) 482-4328 or Chris Rose at (202) 482-5558.

# Report In Brief

## Why We Did this Review

The Broadband Technology Opportunities Program (BTOP) is the largest grant program that the National Telecommunications and Information Administration (NTIA) has managed to date. With BTOP, NTIA has had to confront a number of challenges, including staffing a program office, developing rules and regulations, coordinating development activities with other departments and agencies, awarding grants, and performing effective oversight of activities – all while limiting expenditures to 3 percent of the program appropriation.

We have been proactive in our oversight of BTOP, including providing guidance to NTIA on the importance of establishing appropriate internal controls. As part of our oversight, we initiated this review of BTOP in September 2009.

## Background

On February 17, 2009, the President signed the American Recovery and Reinvestment Act of 2009 into law. The Recovery Act gives $7.2 billion, which must be awarded before September 30, 2010, to NTIA and the Department of Agriculture's Rural Utilities Service to expand broadband services in the United States.

Of the $7.2 billion to be awarded, $4.7 billion was provided to NTIA to establish BTOP, which is a competitive grant program intended to provide funds for deploying broadband infrastructure in unserved and underserved areas of the United States, enhance broadband capacity at public computer centers, improve access to broadband services for public safety agencies, and promote sustainable broadband adoption projects. The first round of grant awards is to be completed in April 2010; the second and final round has already begun.

## American Recovery and Reinvestment Act

## NTIA Must Continue to Improve its Program Management and Pre-Award Processes for BTOP (ARR-19842)

## What We Found

NTIA is entering its second round of funding broadband grant awards. While NTIA has made significant strides in implementing BTOP (developing a program office, issuing its first Notice of Funds Availability, reviewing more than 1,800 submitted applications, and announcing its initial awards) it is essential that NTIA apply the lessons it learned from the first funding round to promptly address any problems that may arise. We found that

1. BTOP's size and complexity have presented NTIA with significant challenges. NTIA's program staffing levels appear to be insufficient to simultaneously perform the necessary first- and second-round award activities. The office must rely heavily on a few key individuals and personnel from other agencies to carry out the program's operations.

2. NTIA's inconsistent documentation of important information such as policies, procedures, staff roles, and key management decisions could lead to inefficiency and miscommunication.

3. The first round of BTOP grant application processing exposed several problems with the online grant intake system, which affected efficiency and users' experiences.

4. A shortage of volunteer peer reviewers meant that application review for the first round was delayed. As NTIA manages the second-round process and handles post-award activities for first-round grant recipients, it must be careful to obtain enough reviewers for the workload.

5. NTIA will need to closely monitor grantees during the post-award phase to ensure they are in compliance with the National Environmental Policy Act (NEPA).

## What We Recommended

We made several recommendations to NTIA with the intention of improving internal controls, promoting transparency, and increasing efficiency. We presented our observations and suggestions to NTIA in January, and they have begun to put many of our recommendations in place.

We recommended that NTIA

- create a staffing plan that outlines the necessary resources to manage BTOP, and that makes provisions to adjust to the loss of key positions;

- develop and implement policies and procedures that articulate key roles, responsibilities, and requirements for documentation;

- have its in-house counsel document any program issues that arise and receive documented opinions from the Department of Commerce's Office of General Counsel;

- supplement the existing pool of reviewers to address unforeseen delays or other impacts that could affect the application review timeline; and

- continue to develop monitoring procedures to identify, track, and assist recipients at risk of experiencing delays in completing post-award NEPA requirements.

# <u>Contents</u>

## Introduction

On February 17, 2009, the President signed the American Recovery and Reinvestment Act of 2009 into law. The Recovery Act gives the Department of Commerce's National Telecommunications and Information Administration (NTIA) and the Department of Agriculture's Rural Utilities Service (RUS) $7.2 billion, which must be awarded before September 30, 2010, to expand broadband services in the United States.

Of the $7.2 billion to be awarded, $4.7 billion was provided to NTIA to establish the Broadband Technology Opportunities Program (BTOP), which is a competitive grant program intended to provide funds for deploying broadband infrastructure in unserved and underserved areas of the United States, enhance broadband capacity at public computer centers, improve access to broadband services for public safety agencies, and promote sustainable broadband adoption projects. The remaining $2.5 billion was provided to the RUS' Broadband Initiatives Program (BIP) to issue loans, grants, and loan/grant combinations to facilitate broadband deployment in rural areas. Figure 1 provides the breakdown of the allocated BTOP Recovery Act funds.

## Figure 1. Breakdown of BTOP appropriations
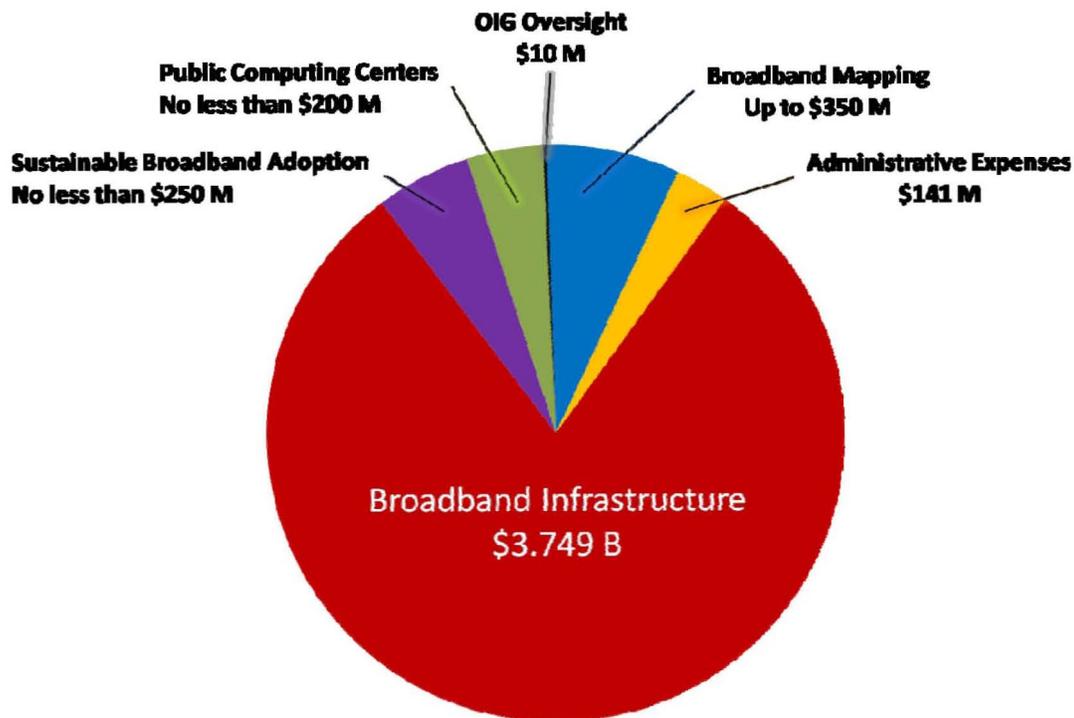


Funding for public computing centers (PCCs), sustainable broadband adoption (SBA) programs, OIG oversight, and broadband mapping are required by statute. Funding for infrastructure programs is flexible, with some of the $3.75 billion potentially going towards PCC and SBA programs. Also, broadband mapping funds are flexible, with some of the $350 million going to infrastructure, PCC, or SBA projects.

## BTOP Program Implementation Process

BTOP is the largest grant program that NTIA has managed. With BTOP, NTIA has had to confront a number of challenges, including staffing a program office, developing grant program rules and regulations, coordinating development activities with other departments and agencies (such as the Department of Agriculture and the Federal Communications Commission), awarding grants, and performing effective oversight of activities – while limiting expenditures to 3 percent of the program appropriation ($141 million). NTIA is taking the following steps to implement BTOP:

| 1. Creating the BTOP program office | 2. Releasing the first NOFA | 3. Signing the management support contract | 4. Completing first round awards and issuing second round NOFA | 5. Completing second round award process |

1. Creating the BTOP Program Office and Initial Planning (Spring 2009) – NTIA formed a program office with over 40 staff members to support BTOP and provided them with grants training. Before establishing program rules, the agency held seven joint public meetings with RUS and issued a request for information that resulted in more than 1,600 comments from the public. The comments were considered in the development of the first Notice of Funds Availability (NOFA), which established program rules and availability of grant funds. NTIA also entered into several memorandums of understanding with various federal agencies to provide program support.

2. Releasing the First NOFA (July 2009) and Continuing Program Planning – RUS and NTIA issued a joint NOFA to describe the availability of BIP and BTOP funds and set forth the application requirements for those entities wishing to participate in one or more of the Recovery Act programs. Up to $1.6 billion in BTOP funds were available in the first grant round:  $1.4 billion set aside for infrastructure, public computer centers, and sustainable broadband adoption projects and $200 million to augment these funds or to be used in subsequent NOFAs. In support of the NOFA, RUS and NTIA held 10 workshops around the country to explain the program rules and application process for the first round of applicants. Approximately 1,800 applications were received by NTIA for the first round of funding. Also, NTIA developed and documented pre-award processes and procedures for vetting, training, and assigning peer reviewers and performing due-diligence reviews of applications receiving sufficient peer review scores.

3. Signing the Management Support Contract (August 2009) – NTIA entered into an approximately $99 million contract with Booz Allen Hamilton (BAH) to provide program administration, application review, communications and outreach, grants administration, post-award technical assistance, and management support. The first-year contract of approximately $30 million was modified in November 2009 through the exercise of a $5 million option to include application review support by adjusting the mix of labor hours provided under the contract. During peak times, the contract provides approximately 200 additional staff to supplement NTIA's existing program office.

4.　Completing First-round Award Process and Issuing Second-round NOFA (November 2009 – February 2010) – After volunteers and BAH personnel completed a peer review of the first-round applications, NTIA performed due diligence of those with scores that met determined thresholds. NTIA then announced the first wave of 10 awards in December 2009. NTIA has continued to award grants, and plans to complete announcing all first-round grants by the middle of April 2010. Concurrent with the first-round award process, NTIA issued its second-round NOFA in January 2010. The NOFA makes available approximately $2.6 billion of program-level funding, with approximately $2.35 billion for Comprehensive Community Infrastructure projects, $150 million for PCC projects, and $100 million for SBA projects.

There were several significant changes to the second-round NOFA, including redefined selection criteria and revised application processes. Many of these changes were made to assure timely grant awards because NTIA had anticipated receiving two to three times the number of applications in the second round. Since NTIA will simultaneously be performing post-award activities for first-round recipients while reviewing second-round applications, there will continue to be significant pressure on the process. For its second round of awards, NTIA and RUS conducted another series of workshops to assist applicants with the process.

5.　Completing Second-round Award Process (March–September 2010) – All second-round applications for PCC and SBA projects had to have been submitted electronically for consideration by March 15, 2010. NTIA extended the application window for Comprehensive Community Infrastructure projects until March 26, 2010. All awards must be made by September 30, 2010, as required by statute in Division B, Title VI, of the Recovery Act. As such, NTIA will have fewer than 7 months to review applications and make awards.

We have been proactive in our oversight of BTOP, including providing guidance to NTIA on the importance of establishing appropriate internal controls. Also, we participated in the workshops supporting the first and second NOFAs by briefing potential applicants about the Recovery Act's accountability and transparency requirements. As part of our oversight, we initiated this review of BTOP in September 2009. Appendix A of this report outlines the objectives, scope, and methodology we followed for the review.

Throughout our review we worked with NTIA program staff and shared our concerns to enable them to correct issues as they emerged. NTIA staff were responsive to these communications and made numerous modifications to program operations throughout our review, thus improving operational controls and efficiency. The findings included in this report were discussed with NTIA's Assistant Secretary for communications and information on January 6, 2010. NTIA has begun to address these findings by obtaining additional personnel to support the BTOP team, strengthening the documentation supporting its decision making, and implementing system enhancements to facilitate application processing.

# Findings and Recommendations

With the issuance of its January 15, 2010, NOFA, NTIA is entering its second round of funding broadband grant awards. While NTIA has made significant strides in implementing BTOP (developing a program office; issuing its first NOFA; developing and documenting processes for vetting, training, and assigning peer reviewers and performing due-diligence reviews of applications receiving sufficient peer review scores; performing outreach activities with stakeholders; reviewing approximately 1,800 submitted applications; and announcing its first set of awards) it is essential that NTIA continue its efforts to promptly address the problems it encountered in the first BTOP funding round. Given the delays to date and the relatively low dollar volume of grants awarded thus far, NTIA is at risk of not meeting the Recovery Act's statutory deadline of September 30, 2010, for the issuance of all BTOP awards.

Difficulties encountered in the first round delayed NTIA's grant award announcements. As of March 15, 2010, NTIA had announced approximately $961million of $1.6 billion in grant awards—about 60 percent of the available first-round funding. NTIA plans to conclude the first round of funding in April 2010, almost 4 months later than its original estimate. NTIA now has about 6 months to complete the issuance of about 40 percent of its $1.6 billion in available funds from the first round and to receive, evaluate, and award approximately $2.6 billion more from the second round.

## I.    BTOP's Size and Complexity Present NTIA with Significant Challenges

To meets its deadline, NTIA must ensure that it has sufficient staffing resources to complete the first round of broadband awards, begin post-award monitoring of first-round recipients, and conduct the second-round review of broadband grants.

### A.  *BTOP Is the First Grant Program of This Size NTIA Has Managed*

NTIA has not previously managed a grant program of BTOP's size and complexity. Prior programs conducted under NTIA vary significantly from BTOP, which—primarily due to its size and resource requirements—requires greater operational coordination. BTOP also involves awards to for-profit companies in addition to states, local governments, federal tribal entities, and non-profits. NTIA has entered into several memorandums of understanding with two Commerce agencies and the Federal Communications Commission for grant processing, management support, and technical assistance, as well as contracting with BAH for administrative and management support in the grant award process.

While the additional resources procured under these agreements help NTIA manage pre-award operations, to date the program office has not completed a comprehensive analysis to ascertain whether its structure and staffing are the most effective for managing BTOP. An analysis has been delayed, partly because of the program office's need to quickly establish policy and operations.

### B. BTOP's Program Office Is Small and Relies Heavily on Other Agency Personnel

Because BTOP is a new and unique program, NTIA has had to hire most of its personnel from outside the agency. The program office has approximately 40 positions, yet as of November 2009 it was only 80 percent staffed. By January 2010 most open positions had been filled, but they appear to be insufficient to simultaneously perform the necessary first- and second-round award activities. In addition, NTIA must oversee the work of approximately 200 BAH professionals performing important tasks related to the program.

NTIA must also provide effective oversight and close coordination of other government organizations that support BTOP. These include:

- the National Technical Information Service (NTIS), which provides information technology support for processing applications;

- the National Oceanic and Atmospheric Administration and National Institute of Standards and Technology, which provide grants management; and

- the Federal Communications Commission, which provides technical assistance to develop a national broadband map.

NTIA also coordinates with BIP, which is operated by RUS. During our review, NTIA continued to augment BTOP's program office with new staff and is working on obtaining staff temporarily detailed from other Commerce units. It has also strengthened its internal controls through regular meetings with the National Oceanic and Atmospheric Administration and National Institute of Standards and Technology grant offices to better coordinate operations, delegate select operations, and improve the pre-award process.

### C. BTOP's Program Office Places Significant Responsibility on a Few Key Individuals

The Government Accountability Office's *Standards for Internal Control in the Federal Government* states that key duties and responsibilities need to be divided or segregated to reduce the risk of error and that as part of its human capital planning, management should also consider how best to retain valuable employees, plan for eventual succession, and ensure continuity of needed skills and abilities.[1]

NTIA, however, currently relies heavily on a few key individuals, putting a strain on key staff members. BTOP will be at risk if these staff members leave the program or are temporarily unable to perform their duties. For example:

- the Contracting Officer's Technical Representative for the contract with BAH also serves as a team leader of five staff members and maintains responsibilities for another NTIA grants program;

- the head of the Infrastructure Division is also the principal manager of BTOP and is accountable for programmatic, personnel, and policy decisions; and

- the head of the Compliance and Reporting Division, who manages administrative functions and compliance issues for the program, is also responsible for approving the BTOP director's grant award recommendations.

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[1] GAO, November 1999. *Standards for Internal Control in the Federal Government*, GAO/AIMD-00-21.3.1, pp. 13-14.

## *Recommendations*

We recommend NTIA develop a staffing plan that outlines the resources it will need to implement the program and that makes provisions to adjust to the loss of key positions. This will include identifying key positions, necessary staffing and allocation of responsibilities, a succession plan, and resources to support the staff.

## II.   NTIA Does Not Consistently Document Policies, Procedures, Staff Roles, and Key Management Decisions

The Government Accountability Office's *Standards for Internal Control in the Federal Government* states that a good internal control environment requires an organizational structure with clearly defined key areas of authority and responsibility and appropriate lines of reporting. [2] Furthermore, internal controls should be documented and "appear in management directives, administrative policies, or operating manuals." [3]

### *A.   Policies and Procedures Are Not Adequately Documented*

NTIA developed and documented pre-award processes and procedures for vetting, training, and assigning peer reviewers and performing due-diligence reviews of applications receiving sufficient peer review scores. However, NTIA has not documented its policies and procedures establishing clear areas of authority and responsibility or detailing appropriate lines of reporting and resolving issues that arise during the due-diligence process. The burden placed on the program's limited staff is even heavier when roles, responsibilities, policies, or procedures are not adequately documented. Inefficiencies arise when program personnel have questions relating to steps in the due-diligence process and do not have clear direction on whom to consult in order to receive accurate and timely responses.

Maintaining adequate documentation is essential not only for guiding staff in the completion of their tasks, but in establishing accountability and transparency within the program. Also, adequately documented policies and procedures on roles, responsibilities, and lines of reporting facilitate a smoother transition of work in the event key staff members depart the program or are unable to fulfill their responsibilities.

During our evaluation, we asked NTIA employees whether policies and procedures had been documented in directives and manuals; we were told no such directives were available. In October and December 2009 we expressed concern about the lack of clear procedures, but it was January 2010 before NTIA announced to BTOP staff that documented procedures and policies were being developed. As such, NTIA has gone more than a year into the program without fully documented procedures.

We also found that NTIA did not document delegations of authority upon the recusal of a member of senior staff. At our request, the documentation was completed after the change in staff took place. Promptly recording procedures and lines of authority will improve efficiency in processing applications, since all employees would have a clear understanding of authority in any circumstance, as well as accountability and transparency.
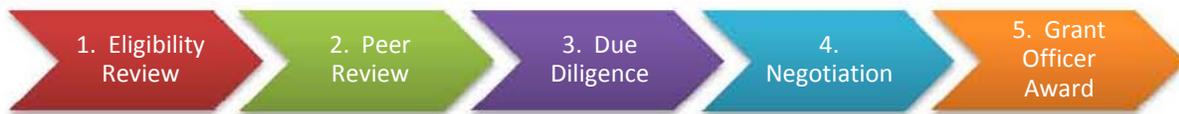
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[2] GAO, November 1999. *Standards for Internal Control in the Federal Government*, GAO/AIMD-00-21.3.1, p. 9.
[3] GAO, *Standards for Internal Control in the Federal Government*, p. 15.

### B. NTIA Has Established a Rigorous Review Process but Needs to Improve Maintenance of Award Documentation

GAO's *Standards for Internal Control in the Federal Government* states, "…internal control and all transactions and other significant events need to be clearly documented, and the documentation should be readily available for examination." [4] Our review of NTIA's documentation to support award recommendations found that documentation was not readily compiled and available for review. We originally requested 10 documentation packages supporting the first of seven waves of applications that were recommended for award in mid-November 2009. However, we changed our request to one grant file after being told it would be too difficult for BTOP to provide us with packages supporting all first-round award recommendations. We received the award documentation for the file in early December but found that not all supporting documentation was included. Additional documentation to address our questions was provided in mid-December 2009. Similarly, when we asked to see three additional files from the first wave and three from the second wave of award recommendations, we received them over 3 weeks after our request.

Our meetings with BTOP officials revealed that while a rigorous process had been established for applications that moved from peer review to due diligence, the supporting compilation and documentation processes were not initially in place; they evolved as steps were completed and "lessons learned" were incorporated. This process is diagramed below:



Our review of seven first-round files supporting NTIA awards encompassed the documentation areas included in the table below.

**Application Documentation Reviewed**

Peer reviewer scoring documentation

Sufficient evidence of matching funds availability

Applicants' financial condition and ability to complete project (credit risk/supplier risk)

Ability to meet environmental requirements (National Environmental Policy Act (NEPA) / National Historic Preservation Act (NHPA))

Accounting system verification

Evaluation of challenges from existing providers

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[4] GAO, November 1999. *Standards for Internal Control l in the Federal Government*, GAO/AIMD-00-21.3.1, p. 15.

| **Application Documentation Reviewed** |
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| Documenting supporting claim that project could not be completed without federal funds |
| Adequate overbuild analysis |
| Special award conditions included in the recommendation memo |

We had a number of working meetings with NTIA to locate additional documentation and obtain more clarity on the documentation presented. Through subsequent meetings with NTIA, NIST, and NOAA, as well as the additional documentation and verbal clarification from NTIA management on its due diligence process, we concluded that for these files NTIA worked to establish a consistent process that meets NOFA requirements. However, NTIA management must continue its efforts to ensure complete documentation is compiled to support awards.

### C. NTIA Did Not Consistently Obtain Legal Opinion Documentation Before Making Select Changes to the Program

NTIA made several programmatic decisions prior to receiving a formal legal review and documenting the review's results. Our office and an independent audit performed by KPMG highlighted NTIA's use of volunteer application reviewers as an area of concern. KPMG identified the use of unpaid volunteers as a possible Anti-Deficiency Act issue, and NTIA had not obtained a documented legal opinion on the use of unpaid volunteers before the first round began. NTIA's in-house counsel is currently working with Commerce's Office of General Counsel (OGC) and the Chief Financial Officer to address this issue.

Also, NTIA obtained a legal opinion from OGC after a contract modification had already been executed. Therefore, NTIA used reviewers provided by BAH before documenting the contract modification terms for OGC and obtaining OGC-documented concurrence that this practice was within the terms and conditions of the contract. However, to support its decision, NTIA obtained a legal review that had been performed by the Department of Interior (the contracting office) prior to executing the contract modification.

Obtaining a documented independent legal opinion before taking action on important issues is a prudent way of doing business, especially with a program as large, complex, and important as BTOP.

### Recommendations

We recommend that NTIA take the following actions:

1. Develop and implement policies and procedures that articulate key roles and responsibilities for NTIA program office personnel. As NTIA continues with its application due diligence, it needs to ensure that documentation compiled to support awards is complete.

2. NTIA's in-house counsel should document program issues that arise and receive documented opinions from OGC on program decisions involving laws and departmental policies. Such opinions provide an additional check on program operations and ensure

that sound decision making was followed. It also supports program accountability and transparency.

### III.    NTIA Must Overcome the System Challenges It Faced in the First Round of Application Intake to Effectively Manage the Second Round

Intake of grant applications was initially planned through Grants.gov, the federal government's system for identifying and applying for grants. However, with the surge of applications for Recovery Act grants, Grants.gov had begun to experience capacity problems. Therefore, NTIA filed for a waiver to use a different grant application intake system and upon approval selected a commercial off-the-shelf system. This decision was made primarily because NTIS, the agency responsible for hosting and supporting BTOP's information technology environment, had worked with the system's vendor in the past and had some familiarity with its products and operations. However, NTIA had little time to complete detailed functional specifications and evaluations to ensure that the proposed system would adequately fit its program needs.

#### A.    *The Application Intake System Could Not Handle the Volume of Applications Submitted During the First Round*

The first-round application period opened on July 31, 2009, and was scheduled to end approximately 2 weeks later, on August 14, 2009. However, as the grant application intake system began experiencing problems the deadline was extended to August 20, 2009, for electronic applications still pending at close of business on August 14, 2009. A final extension to August 24, 2009, was granted for submission of supporting documents.

As several hundred users completed applications and attempted to upload supporting documents, they began to experience significant processing delays due to degradation in server capacity. Several attempts were made at correcting the capacity problems—for example, making software changes to the application, adding servers to increase capacity, and increasing the efficiency of the servers to improve processing time. While these efforts improved the system performance, they did not completely resolve the issues.

The technical issues were exacerbated by help desk support problems. Help desk staff either did not have sufficient familiarity with the system to adequately assist users in navigating screens and inputting application requirements, or did not have the right level of system access to perform basic help desk functions such as unlocking records.

The capacity issues could not be completely resolved; therefore, NTIA instructed applicants not to continue attempting to upload documents online. They instead accepted supporting documentation by hand delivery, overnight shipment, or regular mail if postmarked by August 24, 2009. The problems with the system also led to delays in submission of eligible applications for peer/expert reviewer evaluation. This was due in part to the NTIA staff having to match supporting paper documentation to electronic applications that had actually been successfully submitted online. The first-round application intake phase ended with approximately 2,200 applications being submitted, with 1,800 being for the BTOP program and approximately 400 specifically for BIP.

### B.   NTIA Must Ensure Adequate Time is Allocated for Coding (Where Applicable) and Testing of All Changes to the System and Its Supporting Infrastructure

After the close of the of the first round of applications, NTIA, NTIS, and the vendor identified potential enhancements to the application intake system and its supporting infrastructure that would ensure better processing for the second round. In November 2009, NTIS and the vendor developed a 60-day timeline that included the dates by which system enhancements would be accepted, coded, and tested. The timeline provided that no additional requests for system enhancements would be accepted after December 4, which afforded ample time for coding and testing. Tests of the system enhancements were slated to occur during the first week in January 2010. While a number of changes were requested by NTIA by the December 4 due date, additional enhancements were still being requested throughout January 2010. Some of the enhancements were designed to manage user behavior, such as enforcing file size restrictions on uploaded documents and reducing the amount of required documentation. Other changes to the server infrastructure were designed to more efficiently convert and process documentation and increase server capacity by doubling the number of servers. Together these changes constituted a major system enhancement effort.

As with any major system enhancement project, a significant amount of testing of the changes was required. In NTIA's case the actual volume of applications could only be projected, not definitively determined. Therefore, several full-scale iterations of testing were needed. The testing required mock application and attachment submissions by multiple simultaneous users; for each grant type; under various scenarios; and after any major enhancements to the software or infrastructure. Ample lead time had to be allotted to identify problems, determine the correct solutions, and conduct retesting. With the second-round application intake date of February 16, 2010, the testing window was greatly reduced, potentially compromising a successful outcome. We advised NTIA that before the system was made available for application submission, an implementation readiness assessment needed to be conducted to document the criteria to be met in order to successfully implement the system.

Because of the short timeframe, we discussed our recommendations with NTIA during our field work. Our recommendations centered on actions NTIA needed to take to ensure the application intake system was able to sufficiently handle the expected increase in applications, and to create a better user experience. Some of the necessary actions we discussed included:

- allowing for sufficient time for testing;

- conducting rigorous stress and load testing using multiple simultaneous logins;

- developing milestones and criteria for success and actively monitoring achievement of both;

- ensuring help desk staff were sufficiently trained to appropriately triage and escalate problems in a timely and efficient manner; and

- monitoring network devices, appliances, and servers to identify problems before they affected the users' experience.

NTIA was responsive to our feedback and implemented a number of our recommendations. As of the first week of processing, the system was functioning properly with no reports of capacity

or document conversion problems. However, at the close of our field work, the application process had not yet reached expected peak volumes.[5]

## IV. NTIA is Taking Steps to Avoid the Same Application Review Problems from the First Round; However, Challenges Could Continue

For the first round of BTOP awards, NTIA recruited, selected, and trained volunteer reviewers to assess and score applications to determine which applications should receive due-diligence examination and potential award. However, NTIA could not adequately forecast peer review staffing needs for the application review process, primarily due to uncertainty about the projected number of applications. The personnel shortage was compounded by a lack of qualified individuals applying to become reviewers, reviewers who dropped out of the process, and the time it took to successfully review the often very lengthy applications (at times over 1,000 pages). Initially the peer review process was scheduled for completion by mid- to late September 2009, but due to the insufficient number of peer reviewers and short timeframe for them to complete their assignments, reviews were not finished until December 8, 2009. The situation was resolved only after NTIA modified its contract with BAH in November 2009 to provide peer reviewers to score applications, thus allowing them to move to due diligence. In a January 2010 memo, the assistant secretary for communications and information described the delays in the review process as the primary reason for postponing NTIA's announcement of its first package of BTOP awards.

In order to expedite the application process for the second round of BTOP grants, NTIA requested waivers from the Department that would enable it to adopt a general policy requiring electronic filing of new BTOP applications and to allow two reviewers, rather than three, to evaluate each application for the second round. When requesting these waivers, NTIA stated that it anticipated receiving two to three times more applications for the second round of funding, which would represent a substantial increase in workload.[6] Also, NTIA will be handling post-award activities for recipients of grant funds from the first round. The Department's Director of the Office of Acquisition Management granted both waivers (with conditions), and the second NOFA reflects these changes.

NTIA has taken steps to address the processing issues that affected the first round, but it will have to closely monitor peer reviewer operations for the second round to ensure that reviews progress in a timely manner.

### *Recommendations*

We recommend that NTIA build capacity to increase the reviewers available to supplement the existing pool, addressing unforeseen delays or other impacts that could affect the application review timeline.

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[5] The second-round ended on March 26, 2010, and NTIA received fewer applications than it had estimated.
[6] See footnote 6.

### V.  Pre-award National Environmental Policy Act Analysis Facilitates Timely BTOP Project Completion; However, Close Post-Award Monitoring by NTIA Will Be Needed

We issued a flash report in March 2009 on lessons learned for BTOP from the Public Safety Interoperable Communications program; we referred to the report in our *Top Management Challenges Facing the Department of Commerce*. One of the lessons that we highlighted was that NTIA should promptly complete a programmatic environmental assessment to address compliance issues for any projects for which necessary environmental activities and permits had not been completed, so as not to hinder grantees from completing their projects within mandated time frames.[7]

Since our flash report was issued, BTOP's requirements have changed such that an environmental assessment for the entire program is not needed. Instead, applicants are now required to submit an environmental questionnaire as part of the original application[8] to assess their NEPA compliance. Additionally, to streamline the process NTIA developed a series of categorical exclusions that addressed specific BTOP requirements. Finally, NTIA has implemented a special post-award grant condition on many broadband infrastructure projects that requires NEPA compliance before construction can begin.

Although the BTOP grantee would have the responsibility for preparing the post-award project-specific environmental assessment, NTIA is responsible for reviewing the assessment and either making a finding of No Significant Impact, determining that more information is needed, or concluding that the information in the project-specific environmental assessment requires an environmental impact statement.

The NOFAs for both rounds of BTOP applications stipulate that projects be 67 percent complete within 2 years of grant award and fully complete within 3 years.[9] The grantees' timely completion of the environmental assessment is required before most broadband infrastructure projects can proceed to construction and be on schedule for completion within the 3-year grant period.

### *Recommendations*

We recommend that NTIA continue to develop monitoring procedures to be used in the post-award operations that will help to identify recipients who are at risk of experiencing delays in completing the post-award NEPA requirements. The procedures should include tracking actions required by the recipient and NTIA, as well as steps to be taken if NEPA compliance is not obtained in a timely manner.

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[7] U.S. Department of Commerce Office of Inspector General, March 2009. *NTIA Should Apply Lessons Learned from Public Safety interoperable Communications Program to Ensure Sound Management and Timely Execution of $4.7 Billion Technology Opportunities Program,* ARR-19583, p.3.
[8] 74 Fed. Reg. 33116 (July 9, 2009), and 75 Fed. Reg. 3805 (January 22, 2010).
[9] 74 Fed. Reg. 33109-33110 (July 9, 2009).

## **Summary of Agency Comments and OIG Response**

In responding to our draft report, the Assistant Secretary for Communications and Information summarized the steps NTIA is taking to address the recommendations in the report. Where appropriate, we modified this final report to incorporate NTIA's comments on the draft report.

While we recognize and appreciate the inherent challenges that NTIA faced in the development of BTOP, the agency still must address several matters in order to administer the program successfully throughout the remainder of its life cycle. We are encouraged that NTIA has already begun to focus on our recommendations, and we look forward to NTIA's action plan that will provide specific details on the corrective actions the bureau has taken and planned. NTIA management should continue to focus its attention on the issues in the report.

## Glossary

Included below are definitions for some key terms included within the report. The terms are defined in various BTOP program documents, including its July 2009 Notice of Funds Availability and its January 2010 Notice of Funds Availability.

**Broadband.** Two-way data transmission with advertised speeds of at least 768 kilobits per second (kbps) downstream and at least 200 kbps upstream to end users, or providing sufficient capacity in a middle-mile project to support the provision of broadband service to end users.

**Comprehensive Community Infrastructure.** An infrastructure project that focuses primarily on providing new or substantially upgraded connections to community anchor institutions.

**Infrastructure projects.** Includes last-mile and middle-mile projects that will fund projects to deliver broadband access to unserved and underserved areas.

**Last-mile project.** Infrastructure project that has the predominant purpose of providing broadband service to end users or end-user devices (including households, businesses, community anchor institutions, public safety entities, and critical community facilities).

**Middle-mile project.** Broadband infrastructure project that does not predominantly provide broadband service to end users or to end-user devices, and may include interoffice transport, backhaul, Internet connectivity, or special access.

**Public computer center.** A place, including but not limited to community colleges, libraries, schools, youth centers, employment service centers, Native American chapter houses, community centers, senior centers, assistive technology centers for people with disabilities, community health centers, and Neighborhood Network Centers in public housing developments, that provides broadband access to the general public or a specific vulnerable population, such as low-income, unemployed, aged, children, minorities, and people with disabilities.

**Sustainable broadband adoption**. Innovative projects that promote broadband demand, including projects focused on providing broadband education, awareness, training, access, equipment or support, particularly among vulnerable population groups where broadband technology has traditionally been underutilized.

**Unserved Area.** A proposed funded service area, composed of one or more contiguous census blocks, where at least 90 percent of households in the proposed funded service area lack access to facilities-based, terrestrial broadband service, either fixed or mobile, at the minimum

broadband transmission speed cited above. A household has access to broadband service if the household can readily subscribe to the service upon request.

**Underserved Area.** A proposed funded service area composed of one or more contiguous census blocks meeting certain criteria that measure the availability of broadband service, the rate of broadband subscribership, or the level of advertised broadband speed. Separate criteria were established for middle-mile and last-mile broadband infrastructure projects. For last-mile projects to qualify, one of the following factors must be met: (1) no more than 50 percent of the households in the proposed service area have access to facilities-based, terrestrial broadband service at greater than the minimum broadband speed cited above; or (2) no fixed or mobile broadband service provider advertises broadband transmissions speeds of at least 3 megabits per second downstream in the proposed funded service area; or (3) the rate of broadband subscription for the proposed service area is 40 percent of households or less. For middle-mile projects to qualify, at least one interconnection point terminates in the proposed funded service area that qualifies as unserved or underserved.

## Appendix A: Objectives, Scope, and Methodology

The American Recovery and Reinvestment Act of 2009 provided $16 million for Office of Inspector General audits and oversight of Commerce's Recovery Act activities. Under the Recovery Act, inspectors general are expected to be proactive and focus on prevention.

Our work was performed in accordance with the Quality Standards for Inspections (rev. January 2005) issued by the President's Council on Integrity and Efficiency and under authority of the IG Act of 1978, as amended, and Department Organization Order 10-13 (dated August 31, 2006).

The objectives of our evaluation were to (1) assess how effectively NTIA is implementing BTOP, including management controls, contractor oversight, and program office staffing; (2) evaluate the proposal pre-award review measures that NTIA is taking to ensure an effective and fair application and award process; and (3) evaluate the integrity and reliability of the on-line application system. We performed our evaluation from September 2009 through March 2010 at NTIA headquarters in Washington, D.C. The evaluation covered the pre-award process for BTOP's first round of grant awards initiated with NTIA's July 2009 NOFA.

To assess how effectively NTIA is implementing BTOP, we

- interviewed NTIA senior officials to obtain an understanding of the organizational structure of the program, the make-up of the program office, and the program office's policies and procedures;

- collected and reviewed organization charts, position descriptions, performance plans, and selected resumes of personnel assigned to BTOP;

- met with the contracting officer at the Department of Interior's National Business Center to understand the contracting process and review key contract documents between NTIA and BAH;

- reviewed memorandums of understanding between NTIA and other federal organizations within and outside Commerce that were providing program and administrative support;

- attended weekly NTIA all-hands BTOP meetings and a quarterly status meeting held with BAH;

- reviewed the process for recruiting and training independent peer reviewers;

- assessed the thoroughness of the due diligence process and the audit trail supporting NTIA's decisions to make certain grant awards; and

- conducted interviews and obtained documentation and evidence of key system development, information security, and other supporting information technology controls from NTIA, NTIS, and the vendor.

# Appendix B: Full Text of Agency's Response

UNITED STATES DEPARTMENT OF COMMERCE
**The Assistant Secretary for Communications
and Information**
Washington, D.C. 20230

APR   1  2010

Mr. Todd J. Zinser
Inspector General
U.S. Department of Commerce
1401 Constitution Avenue, N.W.
Washington, DC 20230

Dear Mr. Zinser:

Thank you for the opportunity to comment on the Office of Inspector General's Draft Report No. ARR-19842-1 titled *NTIA Must Continue to Improve its Program Management and Pre-Award Process for its Broadband Grants Program.* I appreciate our ongoing collaboration, your praise of our program and its evolution, and your recommendations on steps the National Telecommunications and Information Administration (NTIA) should take to further enhance its internal controls to ensure that broadband funds from the American Recovery and Reinvestment Act of 2009 (Recovery Act) are made available as efficiently and fairly as possible. I assure you that we are taking every appropriate action to address the recommendations described in the Report.

As the Report notes, NTIA has confronted a number of challenges in effectively implementing the Broadband Technology Opportunities Program (BTOP) consistent with the Recovery Act. From our initial startup activities, including staffing a program office, developing grant program rules and regulations, procuring program support services, and coordinating grants processing activities with other Department of Commerce (DOC) agencies, in little more than a year we have processed a large volume of applications and have awarded over $1 billion in grants. We have achieved all of this despite being limited in our administrative expenses to three percent of the program's appropriation. This is half of what is typically allowed for the startup of a major program such as BTOP.

Considering these challenges, NTIA's achievements thus far have been significant. When the first funding round is complete, the agency expects to have made approximately $1.2 billion in grants to expand broadband infrastructure, invest in public computer centers, and promote sustainable broadband adoption. These investments will help bridge the technological divide, boost economic growth, create jobs, and improve education and health care across the country. For the second grant round, the agency released its second Notice of Funds Availability (NOFA) on time, received over 800 applications, and remains on track to award all BTOP grants by its statutory deadline of September 30, 2010.

Given the significant constraints and challenges presented by the Recovery Act, NTIA has balanced its obligations to protect taxpayer funds and make grants as expeditiously as practicable. I have testified repeatedly to the fact that I will not make bad investments, and we have a rigorous due diligence process in place to eliminate excessive costs and verify the long-term sustainability of projects. I am gratified that your office has recognized the rigor of our

review process and has acknowledged that we have worked to establish a consistent and fair process that meets statutory and regulatory requirements.

As a small bureau managing this one-time stimulus program, NTIA organized the program office with a core staff to handle government functions and to manage our contractors, and leveraged these staff resources with services from contracts and interagency agreements. This approach allowed the program to deploy sufficient resources to meet its critical and time-sensitive needs. NTIA successfully followed a similar model for the TV Converter Box Coupon Program and the Public Safety Interoperable Communications Program. We recognize your concerns about succession planning and redundant oversight of these contracts and agreements, and we are taking steps to address your concerns. Specifically:
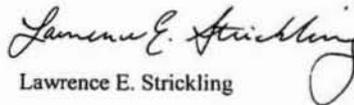
1. **In response to concerns regarding adequate staffing:** NTIA has hired an well-qualified staff to handle core government functions and to manage our contractors. We have also taken steps to eliminate the potential risk of key staffing bottlenecks by bolstering internal and external resources. Additionally, our primary contract with Booz Allen Hamilton provides about 200 contractor FTEs to assist the core government team. As you know, the U.S. Department of the Interior provides comprehensive acquisition support to BTOP, serving as NTIA's contracts office for the Booz Allen Hamilton contract. Under this agreement, Interior has appropriately executed contract modifications to ensure that the contract best meets the program's evolving needs and complies with Federal Acquisition Regulations. Prior to the issuance of the Booz Allen contract and all modifications, Interior engaged in a rigorous clearance process, including review by Interior management, legal offices and by the Recovery Act Board. The additional check of Department of Commerce Office of General Counsel legal review of the contract modification you note in your Report was performed upon your request outside of a standard acquisition management clearance process.

2. **In response to concerns regarding documentation of program policies and roles:** NTIA has assembled a series of focused documents and directives to guide staff and contractors with the review and award of grants, rather than taking a more formal and structured approach to minutely documenting pre-award procedures and responsibilities. Because of the temporary nature of the program and the need to move expeditiously with the award of grants, NTIA believes this more focused approach is the best course of action for the pre-award phase of the program. However, I appreciate the concerns expressed in the Report and can assure you that the agency has been working toward comprehensive documentation to appropriately define roles, responsibilities, and procedures for the post-award phase of the program, during which we plan to oversee over $4.5 billion in grant funds for several years.

3. **In response to concerns regarding documentation of legal issues and guidance:** The Commerce Department's Office of General Counsel has worked closely with NTIA and provided timely legal review and advice. NTIA regularly consults with legal counsel on important issues and, depending on need and urgency, this guidance is received in a variety of forms including verbal, e-mail, and formal written opinions.

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With respect to the Report's discussion of NTIA's analysis of potential Anti-Deficiency Act implications of our expert reviewer process, NTIA sought and obtained legal counsel from the Office of General Counsel, Federal Assistance Law Division prior to the use of volunteer application reviewers. Separately, after examining the events that raised concerns by the OIG, the NTIA Chief Financial Officer concluded that NTIA acted properly in following Department Administrative Order 202-311 guidance on volunteer service with respect to its responsibilities for authorizing the volunteer work and for ensuring that potential volunteers agreed to a waiver of compensation, and that no violation of the Anti-Deficiency Act occurred. NTIA will continue to coordinate with the Office of General Counsel and seek advice as necessary in the implementation and management of the program.

4. **In response to recommendations to implement lessons learned from the first funding round application review process:** NTIA has taken action to ameliorate the Round One delays identified in your Report by making process improvements that will lead to a more expeditious merit review in Round Two. First, we have reduced the number of expert reviewers required to evaluate an application from at least three to at least two to make the process as efficient as possible. We have also switched from a volunteer model to a paid-reviewer model in order to manage the schedule more effectively and minimize the possibility of a delay due to the initial review of applications.

5. **To address concerns regarding the application intake system:** NTIA has implemented a number of important enhancements to ensure that the Round Two online application system would be ready to accept and process applications. We streamlined the application, reduced the number of required attachments, eliminated the joint NTIA-RUS application, and increased system capacity. The online application portal underwent substantial testing and verification to mitigate problems associated with congestion on the system. As a result, the online system performed as planned over the last few weeks and successfully allowed Round Two applicants to submit their proposals without any significant performance issues.

I look forward to continuing to work with you as NTIA implements this important program to expand broadband capabilities in the United States, create jobs, and lay a new foundation for economic growth in America. If NTIA may be of further assistance, please contact Milton Brown, NTIA's Liaison to the Office of Inspector General, at (202) 482-1853.

Sincerely,

Lawrence E. Strickling

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