

U.S. DEPARTMENT OF COMMERCE

Performance Progress Report

2. Award Or Grant Number

04-50-M09045

4. Report Date (MM/DD/YYYY)

06-19-2012

1. Recipient Name

Arizona Department of Administration - ADOA

6. Designated Entity On Behalf Of:

N/A

3. Street Address

100 N. 15th Avenue, Suite 400,

8. Final Report?

Yes

No

9. Report Frequency

Quarterly

Semi Annual

Annual

Final

5. City, State, Zip Code

Phoenix, AZ 85007

7. Project / Grant Period
Start Date: (MM/DD/YYYY)

12-20-2009

7a. End Date: (MM/DD/YYYY)

12-19-2014

7b. Reporting Period End Date:

06-30-2012

9a. If Other, please describe:

N/A

10. Broadband Mapping

10a. Provider Table

Number of Providers Identified	Number of Providers Contacted	Number of Agreements Reached for Data Sharing	Number of Partial Data Sets Received	Number of Complete Data Sets	Number of Data Sets Verified
0	0	0	0	0	0

10b. Are you submitting the required PROVIDER DATA by using the Excel spreadsheet provided by the SBDD grants office? Yes No

10c. Have you encountered challenges with any providers that indicate they may refuse to participate in this project? Yes No

10d. If so, describe the discussions to date with each of these providers and the current status

Gila River Telecommunications, Inc. (GRTI) continued to be a challenge. It indicated its refusal to participate in this project by not granting permission to provide broadband data gathered that maps the GRTI broadband offerings as of June, 2012. The GRTI general manager requires that the data not be provided to the State of Arizona or to NTIA.

During this cycle, we worked generally with all six Arizona Tribal telecommunications providers. We continued discussions with Geoffrey Blackwell of the FCC regarding broadband needs on Tribal lands. Based on these discussions and other priorities, two bills were drafted and introduced to the State Legislature (as reported in last quarter's PPR). The bills were intended to lessen the cost of provisioning middle-mile broadband connectivity to rural portions of the Arizona, including Tribal lands. Both bills, SB1402 and SB1403 passed the Senate and House. One bill, SB1402 was signed into law by the Governor on April 5, 2012.

Mr. Blackwell supported these efforts and with his leadership many of the Tribal telecommunications providers supported the bills. Under this banner, the GRTI also became supportive of the bills. We are currently working with these parties to better understand possible implementation approaches. We now are in a better position to further discuss with GRTI ways in which it may share its provider data.

10e. If you are collecting data through other means (e.g. data extraction, extrapolation, etc), please describe your progress to date and the relevant activities to be undertaken in the future

We collect data directly from providers and by other means including mapping coverage areas based on known locations of DSLAMs, towers, and fiber and related infrastructure. Our mapping of potential coverage uses the same engineering techniques carrier plant engineers use when internally engineering a broadband plant. We only utilize the "other means" wherein a given provider does not (or cannot) provide data or chooses to work with us to improve the quality of its data. Under those circumstances, we use the other means including mapping coverage areas based on known locations of DSLAMs, towers, and fiber infrastructure.

We use technology-specific engineering practices to establish likely coverage and speeds for providers. We then reduce the engineered designs to maps and share the maps with the providers, asking for their concurrence and any corrections that they determine appropriate. We validate the engineered maps with third party coverage and speed data sources, including American Roamer, Ookla and federal crowd-source data. We also utilize new address locators based on the Navteq street network data. We openly share our findings with the provider, such that we can build credibility as to the engineering approach and validity of the maps, we encourage the provider to candidly correct the maps. We also make the maps available to the provider for its internal use and marketing.

This approach has been particularly well received with smaller ISPs struggling to provide their customers with quality service. These providers often require such maps in multiple formats for their various uses, which we accommodate.

10f. Please describe the verification activities you plan to implement

- American Roamer database
- Cable Boundaries data from ESRI
- FCC Form 477 data
- FCC crowd-source database
- Ookla crowd-sourced database
- Navteq street network database
- PowerSearch databases including FCC, FAA, licensed microwave, and tower structures
- SiteSync, eCoverage signal propagation and terrain coverage
- TeleAtlas Central Offices & Wire Centers from ESRI.

As reported previously, we launched the "Arizona Broadband Map" and the "AZ Broadband Project" public portal (www.azbroadband.gov) during Q2 2011. The site continues to be updated regularly and gives detailed information on the Arizona Broadband Project, news and events, resources, the Digital Arizona Council (DAC), and Council Task Group information. Additionally, the site contains regularly updated/newly added video and audio recordings of DAC meetings, Task Group meetings, and relevant presentations.

We have purchased two additional URLs in order to assist in our branding efforts (DIGITALAZ.GOV and DIGITALARIZONA.GOV). We are finalizing our own Speed Test to be utilized within our website which will serve as an additional layer of verification data regarding actual speeds experienced by users. This Speed test will include a voluntary brief questionnaire in order to allow us the opportunity to gather additional relevant data such as addressing, provider and price. We will be coordinating the roll-out of this speed test functionality with state government agencies with an invitation to state employees to utilize the test at home and elsewhere. This will provide tens of thousands of speed tests at very little cost to the project budget.

The CAI data collection efforts continued. Our intention is this will become a useful layer to verification, as specific providers are identified at specific geo-coded addresses. This detailed verification process continued through a direct phone call verification procedure we developed. A project team member was assigned to this task on a full-time basis.

10g. Have you initiated verification activities? Yes No

10h. If yes, please describe the status of your activities

We have implemented verification processes utilizing the following data sources—in the spring 2012 (December 2011) datasets, including:

- American Roamer database
- FCC crowd-source database
- FCC Form 477 data
- Cable Boundaries data from ESRI
- Ookla crowd-sourced database
- Navteq street network database
- PowerSearch databases including FCC, FAA, licensed microwave, and tower structures
- SiteSync, eCoverage signal propagation and terrain coverage
- TeleAtlas Central Offices & Wire Centers from ESRI.

As mentioned in our Q3 2011 report, we submitted a white paper (Arizona Broadband Assessment Project White Paper, Submission 3, dated April 1, 2011) that provides additional information as to how we use these verification data sources.

Web Portal Visitor Data: Unique visitors to the State Broadband Portal: Q2 = 531; Since Portal launch = 1510. Average pages per visit Q2 = 2.67; since launch = 4.33.

10i. If verification activities have not been initiated please provide a projected time line for beginning and completing such activities

We initiated the above set of verification activities as part of our spring 2012 (December 2011 data) dataset. We continued perfecting our verification activities utilizing these data sources as part of our spring 2012 (December 2011) dataset submittal process.

Staffing

10j. How many jobs have been created or retained as a result of this project?

The number of jobs retained and funded by Recovery Act dollars during 2nd Quarter 2012 was 7.43 jobs as calculated using the hours worked and paid for with Recovery Act funds divided by 520 quarterly hours available.

10k. Is the project currently fully staffed? Yes No

10l. If no, please explain how any lack of staffing may impact the project's time line and when the project will be fully staffed

N/A

10m. When fully staffed, how many full-time equivalent (FTE) jobs do you expect to create or retain as a result of this project?

Approximately 7 to 7.5 FTE

10n. Staffing Table

Job Title	FTE %	Date of Hire
Broadband Grant Project Manager (FT)	100	05/15/2011
Mapping Technology Expert (FT Mapping Contractor)	100	02/26/2010
Mapping Application Expert (FT working in correlation with AZ State Land Dept)	100	02/26/2010
Provider NDA Outreach Specialist (FT Mapping Contractor)	100	02/26/2010
Community Anchor Institution & Tribal Outreach Specialist (PT Mapping Contractor)	70	02/26/2010
Broadband Planning Program Manager (FT)	100	04/02/2010
Broadband Planning and Mapping Program Assistant (PT Program Management)	93	02/26/2010
Communication Outreach Manager (PT Program Management)	80	05/15/2011

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Sub Contracts

10o. Subcontracts Table

Name of Subcontractor	Purpose of Subcontract	RFP Issued (Y/N)	Contract Executed (Y/N)	Start Date	End Date	Federal Funds	In-Kind Funds
#1 Data Site Consortium	Provide data aggregation, transformation and analysis, mapping expert consulting.	N	N	02/03/2010	12/19/2014	2,454,297	0
#2 ESRI	Maintenance-based hardware / software	N	N	02/01/2010	12/19/2014	193,624	15,000
#3 E911 Offices (State & County)	Obtain, develop, update Street and Address databases	N	N	02/01/2010	12/19/2014	503,736	130,000
#4 ATII	Technical assistance to local communities	N	N	09/28/2010	12/19/2014	200,000	50,000
#5 AZ ADOA; Other In-Kind Vendors; All other vendor payments under \$25K	Maintain hosting environment at AZ ADOA Data Center; Support services	N	N	02/01/2010	12/19/2014	324,937	153,400

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Funding

10p. How much Federal funding has been expended as of the end of the last quarter? \$2,769,035 10q. How much Remains? \$3,589,143

10r. How much matching funds have been expended as of the end of last quarter? \$719,599 10s. How much Remains? \$892,416

10t. Budget Worksheet

Mapping Budget Element	Federal Funds Granted	Proposed In-Kind	Total Budget	Federal Funds Expended	Matching Funds Expended	Total Funds Expended
Personal Salaries	\$2,178,036	\$530,976	\$2,709,012	\$1,224,620	\$338,428	\$1,563,048
Personnel Fringe Benefits	\$0	\$0	\$0	\$0	\$0	\$0
Travel	\$19,197	\$138,540	\$157,737	\$3,517	\$15,971	\$19,488
Equipment	\$121,373	\$110,448	\$231,821	\$61,113	\$43,000	\$104,113
Materials / Supplies	\$0	\$0	\$0	\$0	\$0	\$0
Subcontracts Total	\$3,676,594	\$348,400	\$4,024,994	\$1,451,011	\$0	\$1,451,011
Subcontract #1	\$2,454,297	\$0	\$2,454,297	\$1,325,383	\$0	\$1,325,383
Subcontract #2	\$193,624	\$15,000	\$208,624	\$57,660	\$0	\$57,660
Subcontract #3	\$503,736	\$130,000	\$633,736	\$0	\$0	\$0
Subcontract #4	\$200,000	\$50,000	\$250,000	\$7,860	\$0	\$7,860
Subcontract #5	\$324,937	\$153,400	\$478,337	\$60,108	\$0	\$60,108
Construction	\$0	\$0	\$0	\$0	\$0	\$0
Other	\$320,000	\$262,000	\$582,000	\$0	\$188,400	\$188,400
Total Direct Costs	\$6,315,200	\$1,390,364	\$7,705,564	\$2,740,261	\$585,799	\$3,326,060
Total Indirect Costs	\$42,979	\$221,651	\$264,630	\$28,775	\$133,800	\$162,575
Total Costs	\$6,358,179	\$1,612,015	\$7,970,194	\$2,769,036	\$719,599	\$3,488,635
% Of Total	80	20	100	79	21	100

Hardware / Software

10u. Has the project team purchased the software / hardware described in the application? Yes No

10v. If yes, please list

No new activity since the Q4 2011 PPR (project team has purchased the required software/hardware for each of the above identified verification data sources).

10w. Please note any software / hardware that has yet to be purchased and explain why it has not been purchased

Most of the identified verification data sources are subscription based—thus requiring annual renewal of associated licensing. All current-year licensing has been purchased. However, we must continue to renew the annual licensing in subsequent years.

10x. Has the project team purchased or used any data sets? Yes No

10y. If yes, please list

Each of the identified data sets have been purchased for the current project years—except the FCC crowd-source database and the FCC Form 477 data, which are made available free-of-charge.

10z. Are there any additional project milestones or information that has not been included? Yes No

10aa. If yes, please list

RECURRING NOTE We continue to search for additional verification sources. At this time, we are evaluating the potential for using Akamai data (such as was used by Akamai in generating The State of the Internet Report e.g., Volume 4, Number 1, 2011), Telogical pricing data (www.telogicalsystems.com), Mobiperf (www.mobiperf.com), and Rootmetrics (www.rootmetrics.com).

Regarding the Arizona Speed Test functionality mentioned above in Question 10F, an Ookla speed-test server will serve as an Arizona specific speed verification service. A survey data collection database will collect more detail about user demographic information, cost, provider name, and tier of service ordered. We anticipate implementation of the speed-test server and survey database early Q3 2012 (August).

We have identified a low-cost method of attracting citizens to this service (as mentioned in 10F above). The Arizona Speed Test functionality will be implemented as a component of the Arizona Broadband Portal (www.azbroadband.gov). The Project's website server will be kept where it is currently housed, in the Arizona Department of Administration (ADOA) data center.

The Arizona Broadband Information web portal continues to provide the public with general information on Arizona Department of Administration - ASET's mapping, planning and outreach projects, broadband speed tests, past and future Digital Arizona Council (DAC) meetings (including agendas, minutes, presentations, audio recordings, and more), Task Group progress and to provide us with feedback.

10bb. Please describe any challenge or obstacle that you have encountered and detail the mitigation strategies the project team is employing

With each new data ask cycle, we encounter challenges associated with identifying all broadband providers within Arizona. However, this cycle we started with 70 spring 2012 providers, confirming their continued presence in the Arizona market. Additionally, we searched sources of potential additional providers, new entrants and well as those having changed names or merged, since the prior cycle. These efforts allowed us to identify, as of June 30, 2012, 72 providers we believe are currently serving the Arizona market. The change in number of providers was due to new entrants, mergers, and termination of service offerings.

10cc. Please provide any other information that you think would be useful to NTIA as it assesses your Broadband Mapping Project

As a result of our agency merger and name change detailed in the Q3 2011 report, we completed and submitted all requested Transfer of Award documents and procedures by way of AAR and POR during Q1 2012. We received, from NIST, the State of Arizona Amendment documents. These documents were signed by our Agency Head and returned. We appreciate the professional and timely assistance provided by Ms. Chatwick of NTIA to finalize the transfer for Arizona.

We continued automating manual and often time-consuming data intake, transformation and validation steps. These steps are required for processing broadband provider data into a format that can be GIS-verified and therefore acceptable to the NTIA. We refer to this automation as Data Intake and Validation Application (DIVA). DIVA has the potential to substantially reduce the recurring labor associated with the biannual NTIA data submittals, while assuring adherence to all related NTIA rules.

RECURRING NOTE Q2 2011 PPR had been returned because the amount of Federal Funds expended for Subcontracts #2-5 was not consistent with the total listed for the vendors in the ARRA Report. The Section 1512 reports for this grant are submitted to the State of Arizona Governor's Office of Economic Recovery who then submits the information to www.federalreporting.gov. The vendor payments submitted for the ARRA Section 1512 report are downloaded directly from the Arizona Financial Information System and are not sorted by budget category such as personnel, travel, equipment, subcontracts, etc. Therefore, the list of all vendor payments in the ARRA report would include payments for items other than budgeted subcontracts such as equipment and professional staff categorized as personnel in the budget. The total of the vendor payments on the Section 1512 ARRA report will consistently include payments to other budget categories and will therefore not tie to the subcontracts tables in 10.o. and 10.t.

11. Broadband Planning

11a. Please describe progress made against all goals, objectives, and milestones detailed in the approved Project Plan. Be sure to include a description of each major activity / milestone that you plan to complete and your current status

During Q2 2012, the Arizona Broadband Team made significant progress in reaching our program goals and objectives. These are summarized in the attached Q2 Supplemental Answers Document.

To date, the Digital Arizona Council (DAC) has held 4 council meetings (one in Q2, 2012), open to the public, which have drawn stakeholders and interested parties from many areas to watch and participate. A total of 32 Task Group meetings have been held to date (5 in Q2, 2012), facilitated by our team, with over 70 Task Group members participating.

We have developed a stand alone planning specific version of our State Broadband Map called the "Community Broadband Planning Map Tool". This tool is in addition to the existing State Broadband Map, not a replacement. It is a second useful tool for statewide users. This tool can be found on our Broadband Portal <http://broadbandmap.az.gov/CommunityPlanningMap/>. It is available to the general public and will prove useful for planners, economic development organizations and staff, and others. In conjunction with this planning map tool, we have developed the first of many video step-by-step tutorials to be used as training aides for how users can analyze any planning scenario. We plan to add several additional video tutorials to assist users in becoming proficient in utilizing the tool. Together with our State Broadband Map, this Planning Map will be an integral method of research, investigation, and accurate information for planning professionals and other entities statewide. Additional information on this tool is detailed in our Supplemental

11i. Planning Worksheet

% Of Total	0	0	0	0	0	0
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Additional Planning Information

11j. Are there any additional project milestones or information that has not been included?

We have made significant progress in our Technical Assistance and Local Planning programs. We have contracted with two experienced individuals, one a veteran rural development expert and the second individual knowledgeable in the state's NTIA broadband mapping and planning grant and goals. These individuals have been engaged to assist with the outreach effort for the Technical Assistance and Planning portion of the grant.

Arizona has 6 Council of Governments, commonly called COGs. Four of these COGs are rural. These organizations represent local municipal and county entities, officials, businesses, and education leaders, while managing their own funding and staff. These COGs provide transportation planning assistance and advice to the Arizona Department of Transportation (ADOT) in accomplishing the goals of that agency regarding state highways. With the recent passage and signing of SB1402 - Digital Arizona Highways Act of 2012 allowing the state's highway rights of way to be utilized for broadband build out, these COGs provide the organizational structure and expertise to assist in implementing our Technical Assistance and Local Planning program to rural Arizona.

The outreach team has met twice with three of the four regional COGs and is in discussions with the fourth COG. Each COG consists of two or more Arizona counties. Arizona has a total of 15 counties. The first set of meetings briefed key COG staff on the Technical Assistance and Local Planning program of this grant. The second round of meetings were held with staff and voting members who were briefed on the program and voted unanimously to support it.

The next phase of meetings (scheduled in early Q3, 2012) will be held to coordinate the application process, by the COGs, to request Technical Assistance and Local Planning funds to create business cases for increased broadband availability as well as to analyze the broadband mapping information as part of their local planning efforts.

Continued in 11L

11k. Please describe any challenge or obstacle that you have encountered and detail the mitigation strategies the Project Team is employing

Please see attached Q2 Supplemental Answers Document.

11l. Please provide any other information that you think would be useful to NTIA as it assesses your Broadband Mapping Project

AZ Stakeholders continue to be strong supporters of this project and the legislation signed into law on April 5, 2012. We continue to garner new supporters as knowledge of the project spreads Statewide. This has truly become a project of broad statewide interest from stakeholders, providers, contractors, businesses, local and regional governments, state legislators, healthcare, education, public safety, tribal and others. We are working closely with the Public Safety Interoperable Communications Office within our agency in order to synergize our efforts with the recently announced FirstNet federal program for the National Public Safety Broadband Network (NPSBN) and the newly signed state legislation (mentioned in sections above) facilitating statewide ROW access and permitting processes. Our PSIC colleague is involved in many FirstNet national discussion groups and planning efforts, allowing us a clear and informed perspective on the federal efforts and how to align our program's expanding initiatives.

Our team is developing a long term sustainability model which will allow for the continuation of the current grant initiated efforts for years to come. This model will propel the statewide build-out of a redundant high capacity broadband fiber backbone utilizing the legislative authorities granted by way of SB1402 freeing up state owned ROW and facilitating once cumbersome permitting processes. We have been in discussions with providers and other fiber construction contractors in the development of this model. We will continue to detail our efforts in this development process in future PPRs. As of this writing, the framework of the model will encompass a synergistic public/private consortium of providers, contractors, state agencies, and potential federal partners as well multiple non-tax based funding alternatives.

12. Certification: I certify to the best of my knowledge and belief that this report is correct and complete for performance of activities for the purpose set forth in the award documents.

12a. Typed or Printed Name and Title of Authorized Certifying Official

Jeffrey Crane

Project Manager

12c. Telephone
(area code, number, and extension)

480 652 0384

12d. Email Address

Jeffrey.crane@azdoa.gov

12b. Signature of Authorized Certifying Official

Submitted Electronically

12e. Date Report Submitted
(Month, Day, Year)

08-17-2012