U.S. DEPARTMENT OF COMMERCE	2. Award Or Grant Number
Performance Progress Report	04-50-M09045
	4. Report Date (MM/DD/YYYY)
	01-17-2012

1. Recipient Name	6. Designated Entity On Behalf Of:
Arizona - Government Information Technology Agency	N/A

3. Street Address	8. Final Report?	9. Report Frequency
100 N. 15th Avenue, Suite 440,	○ Yes	◉ Quarterly
	◉ No	○ Semi Annual
5. City, State, Zip Code		○ Annual
Phoenix, AZ 85007		○ Final

7. Project / Grant Period Start Date: (MM/DD/YYYY)	7a. End Date: (MM/DD/YYYY)	7b. Reporting Period End Date:	9a. If Other, please describe:
12-20-2009	12-19-2014	12-31-2011	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

During this reporting period we have not encountered challenges with any providers that indicate they may refuse to participate in this project. With each new data ask cycle, we occasionally encounter challenges associated with identifying all broadband providers within Arizona. This cycle we started with the fall 2011 providers, confirming their continued presence in the Arizona market. Additionally, we searched sources of potential additional providers, new entrants as well as those having changed names or merged since the prior cycle. These efforts allowed us to identify 74 providers that we believe are currently serving the Arizona market.

Based on challenges discovered during the fall 2011 data cycle, we have identified an initial "hot list" of eleven providers that we believe should receive detailed attention such that we are more likely to receive their data for the spring 2012 cycle.

As reported in the Q3 2011 PPR, Gila River Telecommunications Inc. (GRTI), a tribal entity, refused to participate in the project and explicitly required that we not provide its dataset in that data cycle. As a result of this request from GRTI, we were instructed by the NTIA to cease our attempt at the collection of their data until further notice from NTIA.

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

During this reporting period we did not collect data through other means, (e.g., data extraction, extrapolation, etc.). However, during this period we did prepare our tool sets for collecting data both directly from provider and by other means. We only utilize other means wherein a given provider does not provide data or chooses to work with us to improve the quality of its data. Under those circumstances, we use other means including mapping coverage areas based on known locations of DSLAMs, towers, and fiber infrastructure.

Our mapping of potential coverage uses the same engineering techniques that carrier plant engineers use when internally engineering their broadband plant. 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 (www.americanroamer.com), ID Insight and federal crowd-source data. We also utilize new address locators based on the Navteq (www.navteq.com) 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—and 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 continues to be well received with smaller ISPs that are 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

We have identified the following data sources for our verification processes.

• American Roamer database
• Cable Boundaries data from ESRI
• FCC Form 477 data
• FCC crowd-source database
• IDInsight 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 previous PPRs, 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 Arizona Broadband Development Council (ABDC), and Council Task Group information. Additionally, the site contains video and audio recordings of the ABDC Council meetings, Task Group meetings, and relevant presentations.

As CAI data continues to be collected it is our intention that this will become a useful layer to verification, as specific providers are identified at specific geo-coded addresses. This detailed verification process is ongoing through a direct phone call verification procedure we developed. A project team member is currently 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

Yes, we have implemented verification processes utilizing the following data sources—in both the spring 2011 (December 2010 data) and fall 2011 (June 2011) datasets. Additionally, we are preparing to further deploy verification processes for the spring 2012 datasets, including:

• American Roamer database
• FCC crowd-source database
• FCC Form 477 data
• Cable Boundaries data from ESRI
• IDInsight 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 have 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.

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 2011 (December 2010 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 4th Quarter 2011 was 7.16 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)	66	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	Provider data aggregation, transformation and analysis, mapping expert consulting.	N	Y	02/03/2010	12/19/2014	2,454,297	0
#2 ESRI	Maintenance- base 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 data bases	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

Add Row   Remove Row

Funding

10p. How much Federal funding has been expended as of the end of the last quarter? $2,204,435   10q. How much Remains? $4,153,744

10r. How much matching funds have been expended as of the end of last quarter? $582,458   10s. How much Remains? $1,029,557

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	$968,860	$238,850	$1,207,710

Mapping Budget Element	Federal Funds Granted	Proposed In-Kind	Total Budget	Federal Funds Expended	Matching Funds Expended	Total Funds Expended
Personnel Fringe Benefits	$0	$0	$0	$0	$0	$0
Travel	$19,197	$138,540	$157,737	$3,517	$8,040	$11,557
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	$1,142,170	$0	$1,142,170
Subcontract #1	$2,454,297	$0	$2,452,141	$1,059,280	$0	$1,059,280
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	$0	$0	$0
Subcontract #5	$324,937	$153,400	$480,493	$25,230	$0	$25,230
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	$2,175,660	$478,290	$2,653,950
Total Indirect Costs	$42,979	$221,651	$264,630	$28,775	$104,168	$132,943
Total Costs	$6,358,179	$1,612,015	$7,970,194	$2,204,435	$582,458	$2,786,893
% 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 Q3 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. We will 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

NOTE We continue to search for additional verification sources. At this time, we are evaluating the potential for using Ookla, 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).

We have initiated a discussion with the University of Arizona to host an Arizona specific speed verification service and survey data collection site with the intention of collecting more detail about more user demographic information, cost, provider name, and tier of

service ordered. We are also analyzing the best method of driving citizens to this service, implemented as a component of the Arizona Broadband Portal (www.azbroadband.gov).

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

The manual data collection process from providers was a slow and ineffective task. Therefore, we have spent considerable effort in developing a more automated mechanism for processing collected provider data. We invite the reader to view the next Arizona Broadband Assessment Project White Paper, Submission 4, which will be available Q1 2012, for a detailed explanation of this automated processing mechanism.

Subject to the approval of NTIA, we propose to shift the entire Addressing budget for the Mapping project from beginning in year two to beginning in year three. This shift is due to difficulties we experienced in obtaining the necessary Interagency Service Agreements (ISAs). Those agreements have now been obtained and the addressing effort is ready to begin with the Addressing tasks anticipated be completed by the end of year four.

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 the agency merger detailed in the Q3 2011 report, we have updated the AZ GITA DUNS number assigned to the grant to reflect the GITA merger with ADOA-ASET. The requeste documents were submitted to NTIA during Q4 2011 to complete this update process. We followed documented instructions as provided by Lynn Chadwick dated 10/25/2011 to manage this update process (Transfer of Award). We await notice from NTIA to finalize the transfer and make mention of it here as instructed by Ms. Chadwick.

As mentioned above, the Arizona Broadband Information web portal, which was debuted to the public in Q2, continues to provide the public with general information on Arizona Department of Administration - ASET's (formerly GITA's) mapping, planning and outreach projects, broadband speed tests, past and future Arizona Broadband Development Council (ABDC) meetings (including agendas, minutes, presentations, audio recordings, and more), Task Group progress and to provide us with feedback.

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 Q4 2011, the Arizona Broadband Team made significant progress in reaching our program goals and objectives. These are summarized in the attached Q4 Supplemental Answers Document.

11b. Please describe any challenge or obstacle that you have encountered and detail the mitigation strategies the project team is employing

N/A

11c. Does the Project Team anticipate any changes to the project plan for Broadband Planning?　　◯Yes　◉No

11d. If yes, please describe these anticipated changes. Please note that NTIA will need to approve changes to the Project Plan before they can be implemented

NOTE In the Technical Assistance program, as a result of the State Procurement process, the entire budget for this program was shifted from years two and three to years three and four. In addition, we have elected to reallocate $100,000 ($50,000 in each of years three and four) from the Contract category to the Personnel category. We will accomplish the work more effectively with a blend of staff and contractor efforts. Prior approval of this category change within the Technical Assistance program was not deemed necessary based on our understanding of the 10% threshold rule for reporting budgetary changes.

Funding

11e. How much Federal funding has been expended as of the end of the last quarter? $0　　　　　11f. How much Remains?　　　$0

11g. How much matching funds have been expended as of the end of last quarter? $0				11h. How much Remains?	$0

11i. Planning Worksheet						
Personal Salaries	$0	$0	$0	$0	$0	$0
Personnel Fringe Benefits	$0	$0	$0	$0	$0	$0
Travel	$0	$0	$0	$0	$0	$0
Equipment	$0	$0	$0	$0	$0	$0
Materials / Supplies	$0	$0	$0	$0	$0	$0
Subcontracts Total	$0	$0	$0	$0	$0	$0
Subcontract #1	$0	$0	$0	$0	$0	$0
Subcontract #2	$0	$0	$0	$0	$0	$0
Subcontract #3	$0	$0	$0	$0	$0	$0
Subcontract #4	$0	$0	$0	$0	$0	$0
Subcontract #5	$0	$0	$0	$0	$0	$0
Construction	$0	$0	$0	$0	$0	$0
Other	$0	$0	$0	$0	$0	$0
Total Direct Costs	$0	$0	$0	$0	$0	$0
Total Indirect Costs	$0	$0	$0	$0	$0	$0
Total Costs	$0	$0	$0	$0	$0	$0
% Of Total	0	0	0	0	0	0

Additional Planning Information

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

Two Digital Arizona legislative bills have been crafted by the ABDC Right-of-Way (ROW)/Policy Task Group (TG) with inputs from a wide array of stakeholders. The current effort was launched during Q4 2011. These two draft bills will be entered into the January 2012 Legislative Session, sponsored and championed by private sector organizations. We will report on this further in our Q1 2012 PPR. The bills are titled Digital Arizona Highways & Digital Arizona Office.

The Digital AZ Highways bill leverages existing citizen investment in AZ highway rights-of-way by allowing AZ Dept. of Trans. (ADOT) to install broadband conduits in the ROW. Once installed, the conduits are leased, at cost, to qualified broadband providers. No funds are requested or required from the State General Fund. Over a period of time, the making available of broadband conduits, at cost, along state highways to our most rural towns and communities will enable the private broadband providers to cost effectively serve these communities without costly continuing subsidies.

The Digital AZ Office bill establishes within the ADOA a means for organizing, leasing & coordinating access to the ROW conduits installed by ADOT. It acts as a market-maker, not a regulator. The Office's mission includes data-gathering, coordinating, & barrier-reducing activities. Key Office activities will include working with ADOT & private providers, and managing conduit leasing & related issues. This allows ADOT to focus only to its core activities. The Office will be staffed by ADOA & governed by an unpaid Board. NO General Fund monies will be used. The organizations & stakeholders which have participated in the development & drafting of the two bills include: ADOT, ADOA, ACC, County Supervisors Association, League of Cities & Towns, City of Tempe, NM-AZ Cable Association, CenturyLink, CableOne, Arizona Tech Council, Arizona Telecommunications & Information Council (ATIC), & others.

See 11L for continuation of narrative.

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

Please see 11b and attached Q3 Supplemental Answers Document.

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

As preparation for these bills, under the guidance of the ASET broadband Team, research was conducted which focused on similar efforts in other states as well as the federal government. As a result, this information was utilized in making related recommendations. That work is available as our ROW Study with a separate volume of appendices funded by this grant. The study provided intellectual underpinnings for many of the issues debated by the ABDC Task Groups which have made their way into the bills' language. Stakeholders throughout the State have become strong supporters of the bills. We continue to garner support from new stakeholders in gaining additional rural Legislative Members as bill cosponsors.

In summary, the two bills substantially reduce the cost of connecting rural Arizona with broadband, by making available rights-of-way along AZ highways and other public rights-of-way and expediting agreement of related easements and construction permits. These benefits result from the bills' enabling of ADOT to add broadband conduits to its scope of roadway construction and maintenance, and making the conduits available to broadband providers/operators at its cost. Thus, the bills enable substantial new construction for interested vendor/construction communities adding fiber to the ADOT conduits, wireless towers along the state highways, switching equipment, and microwave links from the towers to local communities, anchor institutions and residences. All the construction is fueled by substantially reduced costs of the underlying ROW and speeding regulatory approvals, which enables fiber-based connectivity from rural communities back to Phoenix or Tucson Tier-1 POPs. It extends the reach of the mobile wireless carriers (ATT, Sprint, TMobile, Verizon) for advanced services as well as to the Internet service providers (ISPs). Their increased recurring revenues fuel the process and support economic development.

Additional information is available upon request.

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 Barbara Nicholson CFO	12c. Telephone (area code, number, and extension) (602) 364-4794
	12d. Email Address BNicholson@azgita.gov
12b. Signature of Authorized Certifying Official Submitted Electronically	12e. Date Report Submitted (Month, Day, Year) 01-26-2012