U.S. DEPARTMENT OF COMMERCE	2. Award Or Grant Number
	04-50-M09045
Performance Progress Report	4. Report Date (MM/DD/YYYY)
	02-24-2012

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	03-31-2012	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 encountered a challenge with one provider, Gila River Telecommunications, Inc. (GRTI), indicating that it refuses to participate in this project. Regarding GRTI's refusal to grant permission to provide broadband data gathered that maps the GRTI broadband offerings as of December 31, 2011, the GRTI general manager requires that the data not be provided to the State of Arizona or to the NTIA.

During this cycle we worked more generally with all six Arizona Tribal telecommunications providers. We also met with Geoffrey Blackwell of the FCC regarding broadband needs on Tribal lands. Based on these meetings and other priorities, we joined with the Arizona Telecommunications and Information Council (ATIC) wherein we formulated two bills. These bills were introduced in the Arizona Legislature under the ATIC banner. They specifically were intended to lessen the cost of provisioning middle-mile broadband connectivity to rural portions of the Arizona—specifically including Tribal lands.

Mr. Blackwell supported these efforts and, with his leadership, many of the Tribal telecommunications providers supported the bills. Under this banner, GRTI also became supportive. Both bills have passed through the Arizona Senate, and one has passed through the House. It is available for the Governor's signature, which is expected to occur early April.

Having forged these relationships, we now are in a better position to further discuss with GRTI specific ways in which it may share its provider data. While we have not gained GRTI's specific approval to share their provider data, we believe that we are much closer to their agreeing to do so.

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 both 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 that carrier plant engineers use when internally engineering their 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—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 has been particularly 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
• Oolka 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) [formerly Arizona Broadband Development Council (ABDC)], 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.

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

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 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 1st Quarter 2012 was 3.5 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 3 to 7 FTE

10n. Staffing Table

Job Title	FTE %	Date of Hire
Broadband Grant Project Manager (FT)	100	05/15/2011
Mapping Application Expert (FT working in correlation with AZ State Land Dept)	100	02/26/2010
Broadband Planning Program Manager (FT)	100	04/02/2010
Communication Outreach Manager (PT Program Management)	50	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	Y	Y	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? $2,394,342   10q. How much Remains? $3,963,837

10r. How much matching funds have been expended as of the end of last quarter? $671,558   10s. How much Remains? $940,457

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	$1,081,256	$315,738	$1,396,994
Personnel Fringe Benefits	$0	$0	$0	$0	$0	$0
Travel	$19,197	$138,540	$157,737	$3,517	$12,844	$16,361
Equipment	$121,373	$110,448	$231,821	$61,113	$43,000	$104,113
Materials / Supplies	$0	$0	$0	$0	$0	$0

Mapping Budget Element	Federal Funds Granted	Proposed In-Kind	Total Budget	Federal Funds Expended	Matching Funds Expended	Total Funds Expended
Subcontracts Total	$3,676,594	$348,400	$4,024,994	$1,219,681	$0	$1,219,681
Subcontract #1	$2,454,297	$0	$2,454,297	$1,136,791	$0	$1,136,791
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	$478,337	$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	$2,365,567	$559,982	$2,925,549
Total Indirect Costs	$42,979	$221,651	$264,630	$28,775	$111,576	$140,351
Total Costs	$6,358,179	$1,612,015	$7,970,194	$2,394,342	$671,558	$3,065,900
% Of Total	80	20	100	78	22	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).

The University of Arizona will host a Linux speed-test server which is 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. The U of A will provide the rack space and bandwidth required at no charge. We anticipate implementation of the speed-test server during Q2 2012.

We are also analyzing the best method of attracting citizens to this service, 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.

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

Generally, with each new data ask cycle, our Team encounters challenges associated with identifying all broadband providers within Arizona. However, this cycle we started with 74 fall 2011 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 December 2011—70 providers that we believe are currently serving the Arizona market. The reduction in number of providers was due to both mergers and termination of service offerings.

As mentioned in our Q4 2011 PPR, we shifted the entire Addressing budget for the Mapping project from beginning in year two to beginning in year three. This shift was due to difficulties we experienced in obtaining the necessary Interagency Service Agreements (ISAs). Those agreements have been obtained as mentioned last quarter. The addressing effort has begun with Addressing tasks anticipated be completed by the end of year four.

We invite the reader to also view the Arizona Broadband Assessment Project White Paper, Submission 3, dated April 1, 2011.

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 have completed and submitted all requested Transfer of Award documents and procedures by way of AAR and POR during Q1 2012. We have been in communication with NIST, and are awaiting arrival of Amendment documents to be signed by our Agency Head and returned. We anticipate this will finalize the transfer. We appreciate the efforts of Ms. Chadwick, of NTIA, in facilitating this process for Arizona.

The Arizona Broadband Information web portal 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 Digital Arizona Council (DAC) [formerly: Arizona Broadband Development Council (ABDC)] meetings (including agendas, minutes, presentations, audio recordings, and more), Task Group progress and to provide us with feedback.

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 Q1 2012, the Arizona Broadband Team made significant progress in reaching our program goals and objectives. These are summarized in the attached Q1 Supplemental Answers Document.

To date, the Digital Arizona Council (DAC) has held 3 council meetings (one in Q1, 2012), open to the public, which have drawn stakeholders and interested parties from many areas to watch and participate. A total of 27 Task Group meetings have been held to date (10 in Q1, 2012), facilitated by our team, with over 70 Task Group members participating.

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

As the Arizona Broadband Project has progressed and expanded in its acceptance, excitement and reach throughout the State, we have added-to, slightly modified, and/or adjusted some of our originally submitted program deliverables/objectives or goals. As one example, the Arizona broadband Development Council (ABDC) name was changed to the Digital Arizona Council (DAC).

Additionally, as a result of the legislation developed by our team and introduced to the legislature (with subsequent passage), some of

our original objectives/deliverable, goals or milestones have taken on a larger scale with broader reach and impact on the state. This has resulted in some minor shifts in outreach strategy and meeting attendance.

As a result, we have updated our project deliverables/objectives and goals document during Q1 2012 starting with modifications to year 3 Q1, through year 5 Q4 (end of grant). Modifications and changes have been highlighted in red for easy identification. Many changes were due to terminology changes or official name changes (such as GITA to ASET, ABDC to DAC, etc). This quarters goals and objectives reflect this update as do all subsequent quarters. We will submit this quarters supplemental as we have done previously (attached to this PPR). At the same time, we will submit the full updated goals and objectives document (years 3-5) via the PAM other Request (POR) process. NOTE: Budgetary figures were not changed with the terminology modifications.

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?

As mentioned in our Q4 2011 PPR, two Digital Arizona legislative bills were introduced to the January 2012 Legislative Session. These bills were crafted with assistance of our team, the Digital Arizona Council (DAC) Policy Task Group, & inputs from many stakeholders. ATIC served as official sponsor of the bills with other private sector organizations championing the cause. The bills, titled Digital Arizona Highways & Digital Arizona Office, have passed through the Senate (SB1402 & SB1403) & one has passed through the House (SB1402). SB1402 was signed by Governor Brewer on April 5, 2012 (just a few days outside the Q1 reporting period).

The Digital AZ Highways bill (SB1402) 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 & communities will enable the private broadband providers to cost effectively serve these communities without costly continuing subsidies.

The Digital AZ Office bill (SB1403) 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. ***NOTE*** In the event SB1403 is not made law, ADOA-ASET holds authority to establish a similar structure administratively by Director mandate.

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 Q1 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 have become strong supporters of these bills. We continue to garner support as knowledge of the bills spreads Statewide. As mentioned in our last PPR, the organizations & stakeholders which have participated in the development & drafting of the two bills include: ADOT, ADOA, ACC, other State agencies, County Supervisors Association, League of Cities & Towns, City of Tempe, NM-AZ Cable Assoc., CenturyLink, CableOne, AZ Tech Council, AZ Telecommunications & Information Council (ATIC), and others.

As a result of its passage and signing into law, SB1402 will help to substantially reduce the cost of connecting rural AZ 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 & maintenance, & 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 state highways, switching equipment, & 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 & 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 & support economic development.

Additional information is available upon request. We look forward to discussing this further during the Washington DC (One Community) event May 22-24, 2012. We will also be talking about the impact of SB1402 at RTC April event.

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) 04-25-2012	