

Q1-2014 Arizona Supplemental Answers Document

This attachment to our Q1 PPR details progress made against all goals, objectives, and milestones detailed in the approved Project Plan. Included is a description of each major activity / milestone planned for completion and current status.

Task	Year 5, Q1 (Jan 1 – Mar 31, 2014) Primary Milestone(s)	Complete By	Q1 Response	Corresponding Primary Activities
Capacity Building				
1.1	Continuously Update activities related to Digital Arizona Council (DAC)	Ongoing	Postponed through Q1	Maintain schedule & activities related to Digital Arizona Council (DAC), including various Task Groups. The DAC meetings continued to be left on-hold by the Chairman through the end of Q1. We retained an independent market research firm to interview council members and survey other stakeholders about their opinions on the future of DAC. We have received this report and it is in the process of being reviewed. The preliminary results indicate a strong desire to continue the DAC function in some form, but no decision has yet been made as to the form and how to proceed. The legislature has created a study group to consider approving a possible grant program to fund statewide school districts ability to augment eRate funding of fiber builds throughout the state. If it's decided to approve such a program, it would likely be approved in next year's legislative session.
1.2	Identify set of tasks related to purpose of Digital Arizona Council (DAC) Strategic Plan - Work includes use of data from the mapping project to create and maintain a Statewide Strategic and Tactical Broadband plan, with emphasis on Broadband deficit areas of the State.	Ongoing	Current as of Q1	The draft strategic plan continues to be available for review on the Digital AZ portal www.digitalaz.gov . We continue to maintain a relationship with the AZ Department of Transportation (ADOT), the AZ Department of Education (ADE), regional Councils of Government (COGs), regional government consortiums and others to pursue the vision of Digital Arizona Highways SB1402. We continue to serve as Subject Matter Experts (SMEs) to support the Governor's Office of Education Innovation (GOEI) in support of Arizona Ready (Arizona's Education Reform Plan) regarding, a statewide education network initiative to improve digital capacity infrastructure to AZ schools. This alliance and collaborative effort will continue indefinitely as the AZ education network initiative continues to be developed. We are currently analyzing statewide K-12 digital connectivity levels and the approximate cost of delivering adequate capacity.
1.2	ASET Team and Digital Arizona Council (DAC) Task Group Formalize and Maintain a Statewide Digital Arizona Broadband Plan	Ongoing	Current as of Q1	The continued coordination and feedback between regions of the state and the current DRAFT version of the Strategic Plan will continue to be coordinated through DigitalAZ.gov, COGs, and other interested parties. ASET will continue to periodically update the plan and send the updates to Stakeholders. Current versions of the plan are available to the public on our website .
1.3	Capacity Building - continuous use of Broadband Team, including Staff support of DAC and to actualize Contracts for Broadband Policy work. As part of Capacity Building,	Ongoing	Current as of Q1, except for Cancelled DAC Mtgs.	Membership in the DAC and its mission statement may be modified going forward to reflect the feedback received from the independent research study that was completed in Q1 2014. On a strictly policy and facilitation basis, as part of SB1402,

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	Broadband Team definitions and Various Tasks to accomplish and support ASET's Broadband Requirements. Tasks will be performed and accounted for with Allocations for Capacity Building			<p>Digital Arizona project stakeholders continue to communicate with out-of-state funding sources regarding a potential infrastructure project to connect the City of Payson back to the Phoenix area with high capacity broadband backhaul connectivity through the laying of conduit facilitated by existence of SB1402. In addition, other network developers continue to come forward on a confidential basis to express their interest in broadband development projects along highways in rural areas of the state.</p> <p>ASET Broadband Team's Leadership Activities continue to include Manager Meetings, Budget Approval, Broadband Team Management (Personnel Review, Policy etc.), state agency coordination with ADOT, Department of Education. Additionally, the project team continues to work on our contractor outreach efforts to the rural Councils of Government (COGs).</p> <p>We are now revamping the digital Arizona website to be stylistically synchronized with other ASET program websites, while improving site navigation, organization and updating of the content.</p> <p>As subject matter experts, we are involved in supporting the AZ Ready program, reviewing and planning how to potentially better integrate eRate application coordination across the State in order to increase eRate funding levels for additional broadband access and possible infrastructure builds.</p> <p>The Governor's budget proposal for this legislative cycle proposed a six-year, \$16M per year, assessment of school districts to fund a proposed program for matching private capital investments in fiber/microwave builds to all state schools that have inadequate capacity, according to national recommendations. As of Q1 we are waiting to see if the legislature will approve the Governor's initiative.</p>
2.0	ASET Team to Identify Broadband Policy Needs and required changes via a Task Group - This Task group proposes policies (i.e., Right of Way) that help to either eliminate barriers or improve the likelihood that Broadband Infrastructure may be more easily deployed.	Ongoing	Current as of Q1	<p>Our Vertical ROW and Longitudinal Highway ROW studies have been made public by means of our web portal.</p> <p>With the passage and signing into law of SB1402, Digital Arizona Highways Act, we continue to implement opportunities that the new law affords, and are creating a framework wherein the activities enabled by this legislation can be managed or continued through the establishment of an administrative team to oversee these details long-term. Additionally, we continue to support multiple community organizations at the state, regional and local levels that are working for creating better internet capacity throughout the state. These organizations represent communities, school and healthcare interests, as well as providers.</p>
3.0	ASET team to provide continuous support and Outreach to Digital Arizona Council (DAC) Task Group activity - including Outreach to	Ongoing	Current as of Q1, except for DAC Task	The project team continues to coordinate forums and educational events geared to remote areas. Most recently, on March 6, 2014, Western Arizona Council of Governments hosted a half-day summit covering broadband issues and

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	Economic Development, Tribal, and Rural Business Development groups, to promulgate best practices and policies to the local level and align local and State Strategies.		Groups	<p>possible solutions with stakeholders in four western Arizona counties.</p> <p>We are actively engaged in supporting the Governor's Office of Education Innovation and their team in providing analysis on K-12 broadband needs for Common Core assessment and the delivery of on-line educational content. We are serving as SMEs regarding the AZ Education Network, which has currently been recommended for funding by the Governor's office and is awaiting legislative approval. These discussions include continued development of existing network analyses and possible ways of incentivizing new infrastructure creation in the rural areas of the state necessary to ensure that statewide K-12 and higher education institutions have sufficient digital capacity to meet future educational and testing needs.</p>
4.0	Intergovernmental Broadband & Economic Development Task Groups - These Task Groups may coordinate intergovernmental Broadband needs, including Counties, Cities, Towns, and School Districts as they work toward funding Broadband in their jurisdictions.	Ongoing	Current as of Q1	<p>We continue focusing our efforts on the rural Councils of Government (COGs) as a centralized coordination point for this outreach effort. These organizations continue to be effective in reaching further into the depths of rural Arizona and also deepening our relationship with ADOT at the regional level. The rural COGs continue to support and champion our community outreach efforts. The county managers in the Southeast region of the state (SEAGO area) are directly supporting our activities through the Cochise County Government.</p> <p>The focus of the rural outreach effort has been creating local cross-disciplinary dialogue about the needs for better internet to serve education, health care, public safety, and economic development interests within each community and the avoidance of silo'd solutions.</p> <p>We have begun to analyze specific shortfalls in educational broadband capacity in both rural and urban settings. We will shortly begin using these analyses to begin one-on-one discussions with selected rural communities and school districts to more deeply understand what existing broadband capacity may be near at hand, but not yet utilized for increasing capacity in those situations.</p> <p>We are identifying and working with broadband developers interested in funding and building capacity in those specific areas and will facilitate conversations between the interested parties to understand how practical solutions to education broadband shortfalls might be corrected in each community.</p>
5.0	Impact regional and National Policy: Support Personnel costs associated with outreach activities to various US regional and National professional Stakeholder Communities as required, to facilitate partnerships in Policy solutions, Broadband projects, and dissemination of Best Practices.	Multiple Recurring Meetings	Current as of Q1	<p>Our additional outreach efforts continue to include significant discussions on the value of combining state resources in planning the implementation of FirstNet in concert with Arizona's SBI program. In states with low-density rural populations and vast geographic areas, the sharing of resources for the implementation of both programs is critical. We continue the process of merging much of the planning and outreach efforts between the two programs.</p>

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				We are also participating in Western States Consortium of SBI recipients and met with six of those states in Salt Lake City in February of 2014 to compare and learn from best practices.
Technical Assistance Project				
6.0	The following are Institutional (non-State) and Local providers of Broadband technical support. Dollars will be pass thru from ASET to these institutions. Matching is illustrated here as being from "Travel". Matching could also be from local Personnel allocations or from Other (Cash, local Contracts, etc.). ASET will also provide pass thru value from its "Matching" in-kind sources.	Ongoing	Current as of Q1	<p>As discussed in previous reports, the continued use of letters of agreement for our TA contracts has proven to be very effective.</p> <p>We are in the middle of the second round of the TA program, which will provide technical assistance to new communities within each of the regions.</p> <p>We have received letters of support for using the state right-of-way for broadband development from the executive directors of the COGs. We have also received letters of support from southeast Arizona, Cochise County, along with Graham, Greenlee and Santa Cruz Counties.</p> <p>We continue overseeing the management of this program with the four rural COGs (NACOG, WACOG, CAAG, and SEAGO [Cochise County Governments]). As a new part of these activities we are developing and extending our mapping data to include middle mile and long-haul fiber assets. Providers have begun to open up and many have become willing under NDAs to provide .kmz files showing those assets. This data will help enormously in understanding where nearby resources may be available for utilization in solving high-capacity internet connectivity issues in smaller underserved communities. We intend to continue pressing providers, who have not yet shared that information, to do so.</p>
6.0	Implement multiple community broadband planning tools, design of sustainable governance & funding models, SB1402 implementation with third parties	Ongoing	Current as of Q1	<p>We continue to develop planning tools accessible through our mapping portal, including video tutorials on their use. They continue being used in regional and local community capacity planning and technical assistance work being performed by the regions' consultants and providers, as well as the Digital Arizona team, for both planning local and statewide programs.</p> <p>In January, we accepted a proposal from the Arizona State University (ASU) GIS team to develop a dramatically improved Java-based "front-end" to our broadband planning mapping tool. This new software will simplify the ease of use and the learning curve required to use the planning tool, and will provide role-based and individual authorization for use of the tool. It will be able to segregate proprietary mapping data layers from public data layers and can remember, recreate, and extend previously stored searches and analysis. We have seen preliminary demonstrations of this new tool and are impressed with its simplicity and ease of use. We expect that many more non-GIS users will now be able to gain benefit from the mapping tool.</p> <p>In addition, the Digital Arizona team is now in a conversation</p>

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				<p>with multiple state, county and municipal agencies about combining access to GIS data from all of these agencies through a single standards-based portal that will be known as AZGEO, and will make use of the new ASU developed front-end. It is expected that funding for this effort will be supported by multiple agencies and agency programs and that the overall spend on GIS support throughout the state will be significantly reduced.</p> <p>We continue to explore the long term potential of assisting ROW owners in their efforts to monetize existing ROW assets throughout the State. The target entities include Railroads, Power Utilities, Pipeline, and Canal operators.</p> <p>Our legal intern-level data analyst continues to facilitate data gathering related to the decision matrix ROW availability and planning tool we developed. He is assigned a workstation located within the Right of Way department at the AZ Department of Transportation (ADOT). The project will benefit from this research as we prioritize implementation of SB1402 and ROW owned by others.</p> <p>We are also using the data and analysis tools created under our program to support analysis and planning for the AZ Ready program effort and the Governor's Office of Education Innovation (GOEI). This includes potentially identifying proximity of schools, other CAIs, student populations, and community populations to potential highway ROW for understanding demand aggregation possibilities to create incentives for private sector investment for constructing fiber assets.</p>
6.0	Technical Assistance for Local Communities. Via Letters of Agreement they will supply matching dollars as their portion (ASET to manage portfolio of Contracts) three to four Contracts will total 80K per year as pass thru via ATI Institute to entities.	Ongoing	Current as of Q1	<p>The ATI Institute continues to manage the Technical Assistance (TA) process under direction of ASET. As Round 1 has ended, we have moved into Round 2 funding efforts.</p> <p>We plan to award a total of \$90,900 during Round 2. Funds will be directed to new communities within the COGs for specific Technical Assistance efforts. Each Round 2 award is for \$22,725, for a total of \$90,900. Round 2 efforts have been contracted for and are now approximately 75% complete at the end of Q1. We have expended \$68,175 through milestone 4.</p>
Local Planning Project				
3.0	Implementation of detailed broadband use case and demand aggregation analysis in selected rural communities and other associated tasks	Ongoing	Current as of Q1	<p>We continue recommending and supporting rural broadband committees to engage local education, healthcare, public safety, and economic development professionals in arriving at jointly created solutions for aggregating local demand as a principle method for driving an increase in broadband capacity in their communities.</p> <p>Business case analyses (BCA's), as part of the Round 1 LRP agreements with the COGs have been completed with CAG, NACOG, and WACOG and Cochise County Government Association.</p>

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				<p>We have circulated the Round 1 reports generated for each of the COG regions with all the other regions throughout the state and posted the reports on our website (http://azbroadband.gov/Resources/Arizona_Rural_Initiatives.html) to be available to all stakeholders.</p> <p>For Round 2, funds have been directed to new communities within the COGs for specific Local and Regional Broadband Planning efforts.</p>
4.0	Implement detailed decision support MATRIX for determining prioritization of SB1402 (AZ Digital Highways Act of 2012) rollout options and other associated tasks	Ongoing	Current as of Q1	<p>We continue to develop the road priority Decision MATRIX to support critical decision making and planning to facilitate investment decisions by communities and providers for expanding broadband capacity. During the market analysis we did for GOEI, we discovered that certain road segments will need to be divided between rural portions and urban portions, because to not do so skewed the school density counts on those road segments and, therefore, the market density analysis in those cases. We have developed a software tool that is capable of generating a comparative analysis of CAI and market densities and generating statewide cost estimates on a road-segment-by-road-segment basis for building out fiber and microwave capacity. This tool will be made available to providers who wish to make use of it for understanding ROI calculations based on aggregated demand, rather than single customer analyses.</p> <p>This will assist us and others in determining prioritization of the future statewide conduit build-out initiatives based on understanding of population densities, income levels, existing competition, existing ROW and facilities, and a deeper understanding of future CAI bandwidth needs, etc., to assure the proper sequencing and staging of private and public funding initiatives.</p> <p>As mentioned previously, we continue working to develop a GIS database framework for the gathering and sustainment of this information and are improving the usability and capabilities of this tool.</p>
7.0.	ASET will Manage a program of Local Broadband Planning funding to Local communities and Stakeholder groups. Matching will be provided by recipients. Total funds to pass through to local recipients will equal up to 250k through years 3-5.	Ongoing	Current	<p>Through our Outreach contractors, ASET identified several recipients (COGs) and related community entities within those COGs, for local planning fund contracts to support local capacity building.</p> <p>The work contracted for in all four agreements for Round 1 has been completed. Each Round 1 award was for \$30,000 for a total of \$120,000 across the recipients. With these agreements, we have substantially completed our goal of equal distribution of Round 1 LRP funds across the four rural COG regions.</p>

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				We plan to distribute \$130,000 during Round 2. Each Round 2 award is for \$32,500, for a total of \$130,000. Round 2 efforts have been contracted for and are now approximately 75% complete at the end of Q1. We have expended \$97,500 through milestone 4.
Mapping Task				
3.2	Update and Deliver Broadband and Community Anchor Databases.	Ongoing	Current	We continue to track Broadband services by Community Anchor Institutions (CAI) in the state and the actual speeds and costs of their broadband services. For Arizona, we have expanded the definition of CAI to include a significant number of commercial institutions which either have a significant broadband demand, or provide Wi-Fi or other internet access to the public. As part of our support of GOEI, as described earlier, we are deepening our assessments of the current level and cost of broadband services being provided to Arizona schools both before and after eRate discounts. We have learned that Arizona schools are at 100 th of the speeds provided to schools in a comparable state, such as Utah, at 10 times the cost per mbps.
3.3	Update the Arizona Broadband Map (including community economic and census data for purposes of community broadband planning).	Ongoing	Current	<p>We are continuously updating the Arizona Map with additional actual measured and surveyed broadband speed performance and cost data for both fixed location services and mobile services.</p> <p>Our Arizona specific speed test functionality is fully operational along with a detailed voluntary survey. This data continues to be added to the Arizona Broadband Mapping Tool for web-based access by stakeholders.</p> <p>We continue to improve on the development of a stand-alone planning-specific version of our state broadband map called the “Community Broadband Planning Map Tools”. These tools can be found on our Broadband Portal http://broadbandmap.az.gov/CommunityPlanningMap/. These tools are freely available to the general public and are proving most useful for planners, economic development organizations, and others. These tools continue to be updated with valuable datasets including demographics, economics, statistics, middle-mile route maps from selected providers, and many other functions which will be used by a wide array of planners, developers, and public/private stakeholders in efforts to determine factual representations of actual community specific circumstances. As mentioned earlier, we have contracted with ASUs GIS program to write a new Java-based front-end to the planning map tools that will be significantly easier to use than the present user interface. We expect the first major phase of this effort to be completed and available to the public by the end of next quarter.</p> <p>Video step-by-step tutorials to be used as training tools for how users can analyze any planning scenario are available here: http://www.youtube.com/user/ArizonaBroadband. New video tutorials will</p>

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				be created to replace the outdated tutorials when the new mapping tool user interface becomes available.
3.4	Maintain the Hardware, Software, Communications and Data Infrastructure to Support Processing and Delivery of the Arizona Broadband Services and Community Anchor Databases and the Operations of the Arizona Broadband Map.	Ongoing	Current	<p>We continue to keep the broadband map servers and software working at a high level of reliability. As reported (Q4 2012) as a result of our expanded broadband map, state specific speed Test, and website functionality, we have improved upon and upgraded certain database and server processes, including: (1) Creation of a survey database, (2) Creation of code to match Ookla Speed Test Results with Survey Results, (3) Re-direction of the DNS, (4) Creation of a survey using Lime Survey associated with a SQL database on the AZDOA/ASET webserver.</p> <p>In this quarter, we have added additional survey and speed test capability for mobile devices (IOS and Android). The speed test uses Mobile Pulse's speed test capability and then hands off the data to our survey website and asks mobile users to complete a mobile version of our survey. As the mobile speed and survey data is captured, is integrated with other speed and test survey data.</p> <p>The servers that currently support the mapping tools are nearing end of life. We are exploring a plan to integrate the necessary server capability with the servers that are currently supporting the AZGEO initiative. This will allow for sustainability of the availability of the tools that have been developed under the NTIA grant after the grant period ends.</p>
3.5	ASET Y5 Phase 3 Project Management.	Ongoing	Current	We continue to manage the overall Mapping, Capacity Building, Local Planning, and Addressing and Technical Assistance programs for effective results.
Addressing Tasks				
3.6	Addressing Initiative tasks.	Ongoing	Current as of Q1	<p>The Arizona Broadband (AZBB) Mapping Project, through the AZBB Address Project, is continuing to obtain existing address and road network data. By helping to accurately develop new address and road network data, this information will be used to improve the accuracy of our overall broadband mapping records, as well as road and address accuracy for all other state, county and local GIS functions. ADOT is also now contributing additional financial support to this effort under its All Roads Program.</p> <p>A consultant TerraSystems Southwest(TSSW), was contracted with to provide GIS services for developing improved address data for the AZ Broadband Mapping project. TSSW assessed existing address data and helped develop contract requirements to ensure that contracts for newly developed 9-1-1 address data can be used to better identify levels of broadband services available at the street address level</p>

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				<p>throughout the state. Currently, the two 9-1-1 contractors that were selected to develop 9-1-1 data for Navajo, Apache and La Paz counties have completed that effort successfully.</p> <p>We continue working to assure that street centerlines and address data for the three counties that still need this data, are developed to meet our state 9-1-1 GIS standards. This standard anticipates NG911 and has additional attributes which support AZ Broadband Mapping geocoding activities. Additionally, ADOT is initiating its own programs at the request of the USDOT to further improve its centerline and address data. Agreements have been made to share this improved information with our 9-1-1 and Broadband programs.</p> <p>We continue to collect and assess the quality of existing county address data to determine the most cost effective methodologies to convert and standardize existing county address databases into a statewide database. To date, statewide, geocodable street network and address schemas have been developed, and data has been collected, processed and assembled from local 9-1-1 and GIS office sources. The appended statewide road network has been evaluated for geocoding rates and accuracy. This is the first time such a locally-based network has been assembled in Arizona and it was used in the Spring and fall 2013 AZBB data submittals. This enhanced data will continue to be incorporated in new submittals throughout the remaining period of the grant and will remain available to all users in Arizona on the AZGEO portal. The insights gained into multi-agency coordination, collection, pre-processing, appending and quality control has been used to develop and refine a sustainable workflow for maintaining statewide geocodable street network and address point files. Meetings will continue to be scheduled and additional agreements developed with counties and local government to obtain maintained address and road network data on an ongoing basis by Digital Arizona and by AZGEO if/when the mapping program is transferred to their control at the end of the grant period.</p> <p>The Arizona State Cartographer's Office (SCO) signed an agreement with ADOT to partner on the development and maintenance of road network data which meets FHWA, Broadband mapping, 9-1-1 and MAP-21 requirements. As part of the agreement with ADOT, and in working with our 9-1-1 community. We continue dialogues with the Bureau of Indian Affairs (BIA) State Office and continue to obtain road and address data BIA has on file. In addition, our program is continuing to coordinate with the Department of Interior (DOI) Geographic Information Officer (GIO) regarding the importance of obtaining BIA roads data. The DOI GIO agreed to facilitate obtaining the data. These efforts are now providing more areas containing accurate road centerlines and facilitate business requirements to continuously improve and provide annual updates of road network and address data for the Broadband</p>

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				<p>project on an ongoing basis. We have obtained road network and address data from the Gila Salt River Indian Community. We continue to work with other tribes in the state to obtain equivalent data.</p> <p>It is anticipated implementing new agreements with counties and tribal governments will improve the quality of this data over time as participation increases. The repurposed server will be the Arizona Geospatial Clearinghouse (AZGEO) which, at the end of the grant, will become the primary repository for geospatial (address ranges, points, road networks and other data) to support the activities of this project, and it is combined with additional data to encourage participants to contribute and engage on a long-term transactional basis. The Arizona Counter Terrorism Information Center (ACTIC) has agreed to become the back-up repository for AZGEO.</p> <p>The agreement with ADOT is providing additional funding for AZGEO development. Additional long-term sources of funding continue to be sought to maintain AZGEO in the future. In support of obtaining this funding, the state CIO's Center of IT Excellence Program has agreed to create a Center of GIS Excellence and to work with other agencies, the Governor's Office, and the legislature to obtain support for an AZGEO implementation plan.</p> <p>Street centerline and address data developed for the AZBB Mapping Project will also be made available to state and county agencies to locate and geocode address data to assist state, county and municipal first responders, and for other approved purposes including land management and other resource management responsibilities.</p>