

**QUARTERLY PERFORMANCE PROGRESS REPORT FOR BROADBAND INFRASTRUCTURE PROJECTS**

**General Information**

<b>1. Federal Agency and Organizational Element to Which Report is Submitted</b>  Department of Commerce, National Telecommunications and Information Administration	<b>2. Award Identification Number</b>  NT10BIX5570102	<b>3. DUNS Number</b>  122452563
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**4. Recipient Organization**

University of Arkansas System 4301 W. Markham St, ST63, Little Rock, AR 72205-7101

<b>5. Current Reporting Period End Date (MM/DD/YYYY)</b>  12-31-2012	<b>6. Is this the last Report of the Award Period?</b>  <input type="radio"/> Yes <input checked="" type="radio"/> No
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**7. Certification:** I certify to the best of my knowledge and belief that this report is correct and complete for performance of activities for the purposes set forth in the award documents.

<b>7a. Typed or Printed Name and Title of Certifying Official</b>  Suzanne Alstadt	<b>7c. Telephone (area code, number and extension)</b>  X
	<b>7d. Email Address</b>  sealstadt@uams.edu

<b>7b. Signature of Certifying Official</b>  Submitted Electronically	<b>7e. Date Report Submitted (MM/DD/YYYY):</b>  02-15-2013
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**Project Indicators (This Quarter)**

**1. Please describe significant project accomplishments completed during this quarter (600 words or less).**

The University of Arkansas System (UAS) project will integrate isolated community anchor networks to expand broadband capabilities and geographic reach of the Arkansas Telehealth Network (ATN) managed by Arkansas Telehealth Oversight & Management (ATOM) Network - a group of community anchor institutions (CAIs) with limited bandwidth & equipment that offers healthcare, higher education, public safety, & research services, and the Arkansas Research & Education Optical Network (ARE-ON), the state's only public-owned fiber optic network currently serving four-year universities. This project will permit high-speed delivery & transmission at 454 "integrated network" sites. (NOTE: The grant application indicated 474 sites, however, during Q4 2011 we identified seven (7) planned sites that closed. Eleven (11) additional sites were identified in Q1 2012 and two (2) additional sites were identified in Q3 2012 that have closed bringing the cumulative total of site closures to 20.

In Quarter 4 2012, the following activities were undertaken or accomplished to meet the mission described above:

**Overall Project**

Installation and connections to CAIs were completed as planned. Also, FCC rural-funded leased circuit/facilities were enriched with BTOP funded telemedicine equipment and participation in the Arkansas e-Link network. Sub-recipient ARE-ON's construction and installation work was stopped on July 11, 2012, and engineering/construction efforts resumed after the ARE-ON suspension was lifted November 14, 2012. Actual fiber optic cable construction did not resume due to lack of work crews that were relocated to other jobs due to the suspension.

University of Arkansas (UAS) reports these project accomplishments with regard to the telehealth network:

- Completed installation of interactive video units (IAVs), Remote Executive Office devices (a network management tool), and clinical assessment tools at the medical and healthcare CAIs.
- Managed installation, connection, and testing of circuits at the medical and healthcare CAIs.
- Pursued resolution to outstanding installation issues at a limited number of CAIs.
- Completed approximately 99% of the video infrastructure systems implementation.
- Outreach activities included:
  - project overview to the UAMS Rural Health Fellows Roundtable
  - project update to the Advanced Communications and IT Joint Committee of the Arkansas Legislature
  - media events for regional outreach and public relations (television and newspapers)
  - meetings with staff at 25 CAIs by Program Managers
- Signed the Public Safety project contract and began meetings with vendors to plan project launch.
- Received approval from National Telecommunications and Information Administration (NTIA) for ARE-ON's second AAR route modification request.
- Provided required documentation to NTIA that was needed to lift all suspensions related to the Corrective Action Plan (CAP).

ARE-ON, the program's sub-recipient, reports these project accomplishments:

- One Higher Education CAI, Southern Arkansas University at Magnolia, is now connected to the network and operational.
- The totals being reported are the same as that of the previous quarter: 32.30 of approximately 33.24 miles of conduit placed, 46.36 of 47.05 miles of fiber placed.
- Despite delays, IRU fiber providers completed the delivery of all 62 project milestones, completing 100% of the 716 total miles of fiber optic cable. Note: Previous reports indicated 690.14 miles total of contracted fiber for the four IRUs. However, the route between two cities was re-engineered by our telecommunications vendor which lengthened the distance by 25.49 miles for a total of 715.89 miles.
- The overall project stands at 97.2% of the conduit and 98.3% of the fiber planned for this project completed.
- Two (2) new fiber huts were placed in December (completing 13 of 16 huts).
- Work to complete the punch lists on the first eleven huts was resumed.

**2. Please provide the percent complete for the following key milestones in your project. Write "0" in the Percent Complete column and "N/A" in the Narrative column if your project does not include this activity. If you provided additional milestones in your baseline plan, please insert them at the bottom of the table. Unless otherwise indicated in the instructions, figures should be reported cumulatively from award inception to the end of the most recent reporting quarter. Please provide a narrative description if the percent complete is different from the target provided in your baseline plan (300 words or less).**

	Milestone	Percent Complete	Narrative (describe reasons for any variance from baseline plan or subsequent written updates provided to your program officer)

	Milestone	Percent Complete	Narrative (describe reasons for any variance from baseline plan or subsequent written updates provided to your program officer)
2a.	Overall Project	80	<p>This section of the Performance Project Report compares actual expenditures to the Quarter 4 2012 figures on the revised Baseline submitted to the project's Federal Program Officer on May 24, 2011.</p> <p>The temporary suspension order by NTIA on July 11, 2012 profoundly impacted sub-recipient ARE-ON's project progress. The suspension, lifted November 14, 2012, left only six weeks in the reporting quarter for ARE-ON to ramp-up their schedule.</p> <p>While striving to build momentum to recoup lost time, ARE-ON successfully completed delivery and testing of the remaining fiber from all four IRU providers. This achievement resulted in completion of the final milestone payment finishing 715.89 miles of contracted fiber consistent with projections for this quarter.</p> <p>These circumstances resulted in a -10% variance.</p>
2b.	Environmental Assessment	100	---
2c.	Network Design	100	---
2d.	Rights of Way	0	N/A
2e.	Construction Permits and Other Approvals	9	<p>Because more IRUs are being used than originally projected, there are fewer railroad crossings and, thus, fewer required permits. Cost savings from this budget item will be applied in other areas where costs are higher than anticipated.</p> <p>It is believed that 100% of all construction permits, ROW permits, railroad crossing permits, city permits, and highway permits have been completed and that no additional permit charges are expected. However, the impact of the Corrective Action Plan (CAP) and subsequent AAR submissions for route changes by sub-recipient ARE-ON is uncertain. Hence, it is possible there may be permit costs in future quarters.</p> <p>The variance for this reporting quarter is -91%.</p>
2f.	Site Preparation	0	N/A
2g.	Equipment Procurement	93	<p>The variance is related to the NTIA temporary suspension order and the impact of financial timing.</p> <p>The variance is -6%.</p>
2h.	Network Build (all components - owned, leased, IRU, etc)	72	<p>ARE-ON IRU providers have completed and invoiced 715.89 of 715.90 miles of fiber optic cable. The totals of both bring the project to 748.19 of 749.13 miles overall network build completion.</p> <p>The temporary suspension order by NTIA on July 11, 2012 heavily impacted sub-recipient ARE-ON's network build progress, thus no construction progress was made.</p> <p>The variance is -16%</p>
2i.	Equipment Deployment	89	<p>The temporary suspension order by NTIA on July 11, 2012 negatively impacted sub-recipient ARE-ON's equipment deployment progress:</p> <ul style="list-style-type: none"> <li>- optical equipment to 3 of 39 sites</li> <li>- 2 of 10 core network routers</li> <li>- 1 of 2 access routers</li> <li>- 1 of 16 Ethernet switches</li> <li>- 2 of 28 security gateways</li> <li>- 1 remote access server</li> </ul> <p>No progress was made in deployment of two network management servers nor iSCSI storage arrays. ARE-ON continues to achieve</p>

	Milestone	Percent Complete	Narrative (describe reasons for any variance from baseline plan or subsequent written updates provided to your program officer)
			momentum to recoup the time lost during the suspension.  These circumstances resulted in a variance of -7%.
	2j. Network Testing	87	The temporary suspension order negatively impacted sub-recipient ARE-ON's network testing progress resulting in a variance of -13%.
	2k. Other (please specify): Indirects, huts, easements, project management costs	74	The temporary suspension order by NTIA on July 11, 2012 impacted sub-recipient ARE-ON's progress on placement of huts. Although ARE-ON reports having completed 13 of 16 total huts this reporting quarter, we fell short of the projection due to the suspension.  The variance is -3%.

**3. To the extent not covered above, please describe any challenges or issues faced during this past quarter in achieving planned progress against the project milestones listed above. In particular, please identify any areas or issues where technical assistance from the BTOP program may be useful (600 words or less).**

A small number of CAIs were identified that needed a variety of additional efforts toward closing resolution. There was some reduced productivity due to holidays and inclement weather.

Once the work suspension was lifted, ARE-ON's primary challenge was to ramp up its engineering and construction activities. The four month suspension period resulted in all contractor and sub-contractor crews and supervisors being reassigned to other projects, some in other states. Fiber optic construction and testing crews could not be deployed to active status by the end of the quarter, but work will resume in January 2013. Manufacturing of huts had been suspended, and the manufacturer was able to complete two that were partially complete at the point of the suspension in July. Engineering on the remaining huts has resumed, and a manufacturing schedule has been established for the remaining three huts. Some work to repair deterioration at incomplete hut sites had to take place as a result of the suspension.

**4. Please report the following information regarding network build progress. Write "0" in the Total column and "N/A" in the Narrative column if your project does not include this activity. Unless otherwise indicated in the instructions, figures should be reported cumulatively from award inception to the end of the most recent reporting quarter. Please provide a narrative description if the total is different from the target provided in your baseline plan (600 words or less).**

Indicator	Total	Narrative (describe your reasons for any variance from the baseline plan or any other relevant information)
New network miles deployed	46	---
New network miles leased	716	---
Existing network miles upgraded	0	N/A
Existing network miles leased	0	---
Number of miles of new fiber (aerial or underground)	46	---
Number of new wireless links	0	N/A
Number of new towers	0	N/A
Number of new and/or upgraded interconnection points	9	The PIP revised Baseline (February 2012 and October 2012) projected 0 new and/or upgraded interconnection points would be completed. However, as reported Q2 2012, five (5) new interconnection points (new fiber huts) were placed and three (3) existing interconnection points were upgraded. Another interconnection point was added this reporting quarter bringing the cumulative total to 9 resulting in a +9 variance.

For questions 5 and 6 please include information relating to agreements that you are negotiating or have entered into, or that your sub recipient, contractor or subcontractor is negotiating or entered into.

**5a. If applicable, please provide the following information with regard to agreements with broadband wholesalers and/or last mile providers as a result of your project.**

Indicators	
Number of signed agreements with broadband wholesalers or last mile providers	0
Number of agreements currently being negotiated with broadband wholesalers or last mile providers	0

Indicators	
Average term of signed agreements (in quarters)	0

**5b. Please list the names of the wholesale and last mile providers with whom you have signed agreements (100 words or less). Providers:**  
N/A

**5c. What wholesale services are being provided by this project? Please describe below. As an attachment to this report, please provide pricing plans (in \$ per month) associated with each wholesale service provided by your product (100 words or less). Wholesale services description:**  
N/A

**5d. If you have designated a third party to operate all or a portion of your network, please provide the name and contact information for this third party, indicate if this entity is a sub recipient, contractor, and/or subcontractor, and describe with specificity the portion of your network this this third party operates (600 words or less).**

UAMS has one sub-recipient that will operate a portion of the BTOP-funded network: the Arkansas Research and Education Optical Network. This portion includes the publicly owned fiber network connecting the state’s four-year universities and two-year colleges to high speed fiber optic services, including 33 total sites. ARE-ON is a state-supported entity. The sub-recipient’s contact information appears below:  
Arkansas Research and Education Optical Network (ARE-ON)  
Michael D. Abbiatti, Executive Director  
155 S. Razorback Road  
Fayetteville, AR 72101  
479-575-3901

**6. Please provide the data according to the type of subscriber. Write “0” in the Total column and “N/A” in the Narrative column if your project does not pass or serve a particular subscriber type. Unless otherwise indicated in the instructions, figures should be reported cumulatively from award inception to the end of the most recent reporting quarter. Please provide a narrative description if the total is different from the target provided in your baseline plan (300 words or less).**

Subscriber Type	Access Type	Total	Narrative (describe your reasons for any variance from the baseline plan or any other relevant information)
Broadband Wholesalers or Last Mile Providers	Providers with signed agreements receiving new access	0	N/A
	Providers with signed agreements receiving improved access	0	N/A
	Providers with signed agreements receiving access to dark fiber	0	N/A
	Please identify the speed tiers that are available and the number of subscribers for each	0	N/A
Community Anchor Institutions (including Government institutions)	Total subscribers served	374	The revised Baseline assumed that 182 subscribers of Telemedicine and Higher Ed CAIs would receive improved access. We were able to accelerate our implementation which resulted in an excess of calculated variance (+192). It is noted that 244 Telemedicine & 1 Higher-Ed subscribers are BTOP-funded. The remaining 129 subscribers' circuits are FCC-funded (with access made possible by use of BTOP-funded telemedicine equipment).
	Subscribers receiving new access	0	---
	Subscribers receiving improved access	374	The revised Baseline assumed that 182 subscribers of Telemedicine and Higher Ed CAIs would receive improved access. We were able to accelerate our implementation which resulted in an excess of calculated variance (+192).

Subscriber Type	Access Type	Total	Narrative (describe your reasons for any variance from the baseline plan or any other relevant information)
	<b>Please identify the speed tiers that are available and the number or subscribers for each</b>	0	The (actual) speed tiers and number of subscribers for each include the following: 1Gbps - 1 subscriber; 100Mbps-5 subscribers; 10Mbps-77 subscribers; 1.5Mbps-291 subscribers
<b>Residential / Households</b>	<b>Entities passed</b>	0	N/A
	<b>Total subscribers served</b>	0	N/A
	<b>Subscribers receiving new access</b>	0	N/A
	<b>Subscribers receiving improved access</b>	0	N/A
	<b>Please identify the speed tiers that are available and the number of subscribers for each</b>	0	N/A
<b>Businesses</b>	<b>Entities passed</b>	0	N/A
	<b>Total subscribers served</b>	0	N/A
	<b>Subscribers receiving new access</b>	0	N/A
	<b>Subscribers receiving improved access</b>	0	N/A
	<b>Please identify the speed tiers that are available and the number of subscribers for each</b>	0	N/A

7. Please describe any special offerings you may provide (600 words or less).

N/A

8a. Have your network management practices changed over the last quarter?  Yes  No

8b. If so, please describe the changes (300 words or less).

N/A

9. Community Anchor Institutions:

Using the table below, please provide a list by service area of the community anchor institutions (including Government institutions) connected to your network as a result of BTOP funds. Figures should be reported for the most recent reporting quarter only (NOT cumulatively). Also indicate whether your organization is currently providing broadband service to the anchor institution. Finally, provide a short narrative description with examples of how institutions are using BTOP-funded infrastructure (300 words or less).

Institution Name	Service Area (town or county)	Type of Anchor Institution (as defined in your baseline)	Are you also the broadband service provider for this institution? (Yes / No)	Narrative description of how anchor institutions are using BTOP-funded infrastructure
See Addendum	See Addendum	See Addendum	See Addendum	Per Guidance, this list included connected & enriched.

Project Indicators (Next Quarter)

1. Please describe significant project accomplishments planned for completion during the next quarter (600 words or less).

The projections were calculated using the Revised PIP of October 2012.

UAS Telehealth plans to resolve any outstanding installation issues at CAIs, continue education of community leaders and outreach to CAIs. Also, we will continue to finalize equipment acquisition/installation. Further, we plan to implement scheduling/reporting systems with CAIs as well as utilization reporting and scheduling of multi-conferences. We will continue to work toward completing development of operations for sustainability and working with CAIs to develop their own telemedicine applications. Until agreement is reached on approved funding of leased facilities, we can estimate no additional connections of CAIs - this includes the next quarter. If/when

funding is approved, we will begin the process and complete a few additional CAIs.

ARE-ON, the program's sub-recipient, reports these project accomplishments are planned for completion during the next quarter: Completion of fiber testing and remediation for all currently constructed fiber. However, final construction of fiber and placement of huts for the final three hut sites (Beebe, Fayetteville, and North Little Rock) are not anticipated until Q2 2013. Optical equipment hot staging will be completed, and deployment of that equipment will begin during the quarter. 100Mb leased circuits for three community colleges will be completed and activated by the end of the quarter. Backbone router deployment will continue, but will not be completed by the end of the quarter. Another 1.48 miles of fiber is projected for completion.

ARE-ON does not plan to be a broadband wholesaler or provider for last mile providers. This project is planned for middle mile deployment for integrating and expanding two existing networks (ARE-ON and ATN/ATOM). Therefore, there will be 0 broadband wholesaler/last mile provider agreements.

In summary:

- 1.48 miles = Estimated number of miles planned for deployment next quarter.
- 0 = Estimated number of additional CAIs planned to be connected by the end of the next quarter.
- 0 = Estimated number of broadband wholesaler/last mile provider agreements planned through the end of next quarter.

**2. Please provide the percent complete for the following key milestones in your project. Write "0" in the Planned Percent Complete column and "N/A" in the Narrative column if your project does not include this activity. If you provided additional milestones in your baseline plan, please insert them at the bottom of the table. Unless otherwise indicated in the instructions, figures should be reported cumulatively from award inception to the end of the next reporting quarter. Please provide a narrative description if the percent complete is different from the target provided in your baseline plan (300 words or less).**

	Milestone	Planned Percent Complete	Narrative (describe reasons for any variance from baseline plan or any other relevant information)
2a.	Overall Project	94	As instructed by the FPO, the projections were calculated using the Revised PIP of October 2012 resulting from the stop-work order.
2b.	Environmental Assessment	100	---
2c.	Network Design	100	---
2d.	Rights of Way	0	N/A
2e.	Construction Permits and Other Approvals	100	---
2f.	Site Preparation	0	N/A
2g.	Equipment Procurement	98	---
2h.	Network Build (all components - owned, leased, IRU, etc.)	92	---
2i.	Equipment Deployment	97	---
2j.	Network Testing	100	---
2k.	Other (please specify): Indirects, huts, easements, project management costs	89	---

**3. Please describe any challenges or issues anticipated during the next quarter that may impact planned progress against the project milestones listed above. In particular, please identify any areas or issues where technical assistance from the BTOP program may be useful (600 words or less).**

UAS Telehealth projects the following challenges: getting buy-in from CAIs that are new to telemedicine and assisting them with development of their own applications while finalizing the development of operations for sustainability.

Our sub-recipient, ARE-ON, reports they will resume bringing huts online, install equipment, and begin bringing community colleges online. This will require substantial fine tuning of each hut's infrastructure. Weather-related delays are anticipated throughout the winter months. The engineering staff will also have to begin coordination and training for the networking staff at the community colleges to prepare them for the installation of their new connections. We are effectively six months behind schedule due to the work suspension, and although we have been verbally granted a two-month extension to the project, compressing the time lost into the time remaining to complete the project on time will be the greatest overall challenge.

**Infrastructure Budget Execution Details**

**Activity Based Expenditures (Infrastructure)**

1. Please provide details below on your total budget, cumulative actual expenditures (for the period ending the current quarter), and cumulative anticipated expenditures (for the period ending next quarter) for each line item, including detailed disbursements of both matching funds and federal funds from project inception through end of this quarter (actual) or next quarter (anticipated). Actual and anticipated figures should be reported cumulatively from award inception to the end of the applicable reporting quarter.

Budget for Entire Project				Actuals from Project Inception through End of Current Reporting Period			Anticipated Actuals from Project Inception through End of Next Reporting Period		
Cost Classification	Total Cost (plan)	Matching Funds (plan)	Federal Funds (plan)	Total Cost	Matching Funds	Federal Funds	Total Costs	Matching Funds	Federal Funds
a. Administrative and legal expenses	\$10,709,094	\$88,400	\$10,620,694	\$7,755,741	\$0	\$7,755,741	\$9,096,236	\$920,147	\$8,176,089
b. Land, structures, right-of-ways, appraisals, etc.	\$10,711,692	\$9,851,632	\$860,060	\$7,382,533	\$3,707,269	\$3,675,264	\$13,085,407	\$6,467,712	\$6,617,695
c. Relocation expenses and payments	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
d. Architectural and engineering fees	\$2,172,357	\$0	\$2,172,357	\$2,576,165	\$0	\$2,576,165	\$3,028,386	\$0	\$3,028,386
e. Other architectural and engineering fees	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
f. Project inspection fees	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
g. Site work	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
h. Demolition and removal	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
i. Construction	\$28,195,212	\$0	\$28,195,212	\$24,014,690	\$0	\$24,014,690	\$30,571,902	\$0	\$30,571,902
j. Equipment	\$43,605,098	\$15,998,347	\$27,606,751	\$42,729,502	\$16,844,269	\$25,885,233	\$42,729,502	\$16,862,432	\$25,867,070
k. Miscellaneous	\$33,188,367	\$512,048	\$32,676,319	\$17,936,474	\$512,048	\$17,424,426	\$22,679,695	\$512,048	\$22,167,647
<b>l. SUBTOTAL (add a through k)</b>	\$128,581,820	\$26,450,427	\$102,131,393	\$102,395,105	\$21,063,586	\$81,331,519	\$121,191,128	\$24,762,339	\$96,428,789
m. Contingencies									
<b>n. TOTALS (sum of l and m)</b>	\$128,581,820	\$26,450,427	\$102,131,393	\$102,395,105	\$21,063,586	\$81,331,519	\$121,191,128	\$24,762,339	\$96,428,789

2. Program Income: Please provide the program income you listed in your application budget and actuals to date through the end of the reporting period.

a. Application Budget Program Income: \$0	b. Program Income to Date: \$0
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