

QUARTERLY PERFORMANCE PROGRESS REPORT FOR BROADBAND INFRASTRUCTURE PROJECTS

General Information

1. Federal Agency and Organizational Element to Which Report is Submitted Department of Commerce, National Telecommunications and Information Administration	2. Award Identification Number NT10BIX5570102	3. DUNS Number 122452563
4. Recipient Organization University of Arkansas System 4301 W. Markham St, ST63, Little Rock, AR 72205-7101		
5. Current Reporting Period End Date (MM/DD/YYYY) 03-31-2012	6. Is this the last Report of the Award Period? <input type="radio"/> Yes <input checked="" type="radio"/> No	
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.		
7a. Typed or Printed Name and Title of Certifying Official Rebecca Nickelson	7c. Telephone (area code, number and extension) X	
	7d. Email Address rgnickleson@uams.edu	
7b. Signature of Certifying Official Submitted Electronically	7e. Date Report Submitted (MM/DD/YYYY): 05-14-2012	

Project Indicators (This Quarter)

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

The University of Arkansas System project will integrate isolated community anchor networks to expand broadband capabilities & geographic reach of the Arkansas Telehealth Network (ATN) managed by Arkansas Telehealth Oversight & Management (ATOM) Network-a group of community anchor institutions with limited bandwidth & equipment that offer 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 of the following broadband benefits at the 456 "integrated network" sites. (NOTE: The grant application indicated 474 sites, however, during our activities in Q4 2011 we identified seven (7) planned sites that closed. During our activities in Q1 2012, eleven (11) additional sites have closed or plan to be reassigned bringing the cumulative total of site closures to eighteen (18) and a total of planned sites to 456.) We plan to submit an AAR to address this matter.

In Quarter 1 2012, the following activities were undertaken or accomplished to meet the mission described above:

Overall Project

The project reached significant milestones in the implementation phase which included finalizing contracts for leased broadband facilities. This accomplishment allowed the project to engage in aggressive coordination for deployment of leased broadband facilities and hub connectivity to healthcare Community Anchor Institutions (CAIs). At this stage, ARE-ON's (sub-recipient) lateral construction is still in progress. Contractors placed 9.73 miles of new conduit (overall total of 26.51 miles) and 27.78 cable miles of new fiber (overall total of 37.00 cable miles) in nine cities. One route in Little Rock having 4.3 cable miles of fiber placed is complete and carrying traffic. One IRU provider has delivered on both of its fiber routes.

University of Arkansas for Medical Sciences (UAMS) reports these project accomplishments with regard to the telehealth network:

- Received one colocation agreement allowing Arkansas e-Link to install & maintain networking, communications, computer & other equipment.
- Finalized contracts for leased broadband facilities, eICU equipment, & connectivity devices/managed services for network hubs.
- Completed procurement for 150 devices to aid in network management & interactive video (IAV) mobility at the CAI.
- Began coordination for deployment of leased broadband facilities & hub connectivity to CAIs.
- Continued installation of video infrastructure equipment that will provide 24/7 video network management.
- Received 500+ Clinical Assessment Tools for attachment onto clinical IAV carts.
- Program Managers met with staff at 64 CAIs to conduct site assessment interviews & discuss deployment of leased broadband facilities.
- Program Managers coordinated installation of 63 interactive video units & 80 public access PCs to CAIs.
- Outreach efforts included:
 - A web site enhancement of stories highlighting CAI IAV vision & usage.
 - Addition of a Google Earth map to the project web site with information about equipment & bandwidth each CAI is receiving.
 - Presentations on project overview & progress to four organizations.
- Q4 2011 reported closure of seven (7) sites. Eleven (11) additional sites were identified in Q1 2012 as being closed or plan to be reassigned. To date there is a cumulative total of eighteen (18) closed sites (or sites that plan to be reassigned resulting in a total of 456 planned sites).

ARE-ON (sub-recipient) reports these project accomplishments:

- Continuation of fiber laterals construction to the college campuses.
- Cable placement is approximately 100% complete pending final testing & acceptance in 6 cities. One route in Little Rock is completed & carrying traffic.
- Work is in progress at Malvern, Harrison, & East Camden.
- Three (3) new huts were placed bringing the total to four (4) leaving 12 additional huts to be placed.
- Procurement of all optical equipment & routers.

The sum of these activities comprise the continuing steps of the grant's implementation phase, allowing the University of Arkansas System to gather & disseminate information & procure the resources necessary to effectively implement the proposed project. At the end of the three-year grant period, all 456 planned sites will function on an "integrated network" fusing ATN & ARE-ON sites, benefiting from the following BTOP deliverables:

- Substantial bandwidth upgrades
- Significant network expansion
- Interactive video equipment additions
- Public computer additions

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)
2a.	Overall Project	43	<p>This section of the Performance Project Report compares actual expenditures to the Quarter 1 2012 figures on the revised baseline submitted to the project's Federal Program Officer on May 24, 2011.</p> <p>ARE-ON, the program's sub-recipient, has contracted for Indefeasible Rights of Use (IRUs) from four (4) providers over 17 intercity fiber routes. Most of the IRU contracts have milestone payments based on completion of engineering and construction for any new routes, with the final milestone payment planned once the fiber has been delivered and tested. There are 690.14 miles total of contracted fiber for the four (4) IRUs. It is projected that the final milestone payment for all IRUs will not be reached until Quarter 4 2012.</p> <p>Additionally, the telemedicine portion of the project experienced delays in contract negotiations for Mobile Virtual Physician (MVP) and acquisition of components necessary to complete installation of video infrastructure management equipment.</p> <p>Collectively, these circumstances resulted in a -6% variance.</p>
2b.	Environmental Assessment	100	No additional charges are anticipated for Environmental Assessment resulting in a +8% variance against the revised Baseline projections.
2c.	Network Design	98	Although these fees have been paid in full, the invoice total cost varied from projections in the revised Baseline, resulting in a -2% variance. We anticipate no additional charges for Network Design.
2d.	Rights of Way	0	N/A
2e.	Construction Permits and Other Approvals	9	There are approximately 700 fewer miles of fiber being constructed than was projected in the revised Baseline; therefore, there were fewer railroad crossings and, thus, fewer required permits. However, other permit fees may be incurred in coming quarters for fiber construction. Cost savings from this budget item will be applied in other areas where costs are higher than anticipated. We anticipate no additional charges for construction permits. The variance for this reporting quarter is -91%.
2f.	Site Preparation	0	N/A
2g.	Equipment Procurement	69	We were able to procure equipment more expeditiously than the revised Baseline projected, resulting in a +13% variance.
2h.	Network Build (all components - owned, leased, IRU, etc)	31	The revised Baseline assumed Indefeasible Rights of Use (IRUs) payments to be completed by Quarter 3 2011. ARE-ON has contracted for IRUs from four (4) providers over 17 intercity fiber routes. Most of the IRU contracts have milestone payments based on completion of engineering and construction for any new routes, with the final milestone payment planned once the fiber has been delivered and tested. There are 690.14 miles total of contracted fiber for the four (4) IRUs. It is projected that the final milestone payment for all IRUs will not be reached until Quarter 4 2012. The variance for this reporting quarter is -16%.
2i.	Equipment Deployment	60	The project contributes a large amount of in-kind equipment toward its match amount. The revised Baseline reflected this match contribution proportional to the grant funds expected to be expended within each quarter. Since delays in the finalization of IRU agreements have resulted in fewer funds being expended this quarter, fewer equipment matching funds were contributed resulting in a -9% variance.

	Milestone	Percent Complete	Narrative (describe reasons for any variance from baseline plan or subsequent written updates provided to your program officer)
	2j. Network Testing	0	The revised Baseline assumed that video infrastructure management equipment would have been installed and tested, however contract negotiations were protracted longer than expected causing delays in procurement and installation. There were also delays in hut construction which delayed Leased Broadband implementation (to begin Q2 2012). Overall, these circumstances resulted in a -82% variance.
	2k. Other (please specify): Indirects, huts, easements, project management costs	24	The revised Baseline assumed that progress of hut construction would be more advanced, however, heavy rain has interfered with construction resulting in a -2% variance during Quarter 1 2012.

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).

UAMS experienced challenges due to delays in receipt, installation and testing of video infrastructure management equipment as well as contract negotiations for eICU and Mobile Virtual Physician (MVP). There were issues with address changes and closings of CAls. Also, additional (unexpected) reporting requirements re-directed resources from project management to project reporting.

Our sub-recipient, ARE-ON faced two major challenges during this reporting quarter. Weather delays, especially due to heavy rain, has slowed some construction activities, including cable placement and hut sets. Contractors were able to absorb much of the delay by shifting activities around the state. Also, problems with manufacturing of the pre-fabricated huts were discovered requiring the manufacturer to do in-the-field remediation and some changes in procedures and documentation in the manufacturing process. The delays have not appreciably affected the overall schedule.

It was believed the legal action involving one of the unsuccessful IRU vendors and the University would be resolved by the end of this reporting quarter. However, the litigation is still pending. On January 18, 2012 a hearing was held in the Miller County Circuit Court with respect to a Motion to Dismiss filed by Defendants. Among other grounds for dismissal, Defendants moved that the Complaint be dismissed due to improper venue under Ark. R. Civ. P. 12(b)(3). As a result of the hearing, Judge Griffin transferred the case to the Pulaski County Circuit Court. Since this time, the Plaintiff has not taken any further action. We still do not anticipate the pending litigation to affect any of the executed IRUs.

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	4	The revised Baseline assumed there would be no new network miles deployed this quarter, however ARE-ON completed construction on 9.73 miles of conduit (overall total of 26.51 miles) and 27.78 cable miles of new fiber (overall total of 37.00 cable miles) in nine cities. One route of 4.29 cable miles in Little Rock was completed & is carrying traffic resulting in a positive variance of 4 miles.
New network miles leased	0	The revised Baseline projected 633 new network miles leased (inclusive of 100, 20, 10 and 1.5 mbps circuits) would be completed. However, the state requirement of posting of RFPs for 30 days coupled with the length of time required for contract negotiation delayed this item resulting in a negative variance of 633 miles. By the end of Q2 2012, the number of new network miles leased should be in alignment with the revised Baseline.
Existing network miles upgraded	0	N/A
Existing network miles leased	0	---

Indicator	Total	Narrative (describe your reasons for any variance from the baseline plan or any other relevant information)
Number of miles of new fiber (aerial or underground)	28	The revised Baseline assumed this measure should include fiber laid in addition to conduit. Based on the revised criteria incorporating conduit miles, we show a cumulative 28 miles of new fiber this quarter alone exceeding the cumulative 27 miles in the revised Baseline resulting in a variance of one additional mile. It is noted that a typo occurred on the Q4 2011 PPR. The total number of miles of new fiber indicated "34" and should have read "24".
Number of new wireless links	0	N/A
Number of new towers	0	N/A
Number of new and/or upgraded interconnection points	0	---

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
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

Subscriber Type	Access Type	Total	Narrative (describe your reasons for any variance from the baseline plan or any other relevant information)
	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	0	The revised Baseline assumed that 43 subscribers would be served, however delay dependencies relative to issuance of FONSI, state requirements of posting of RFPs for 30 days, length of time required for vendor assessment, contract negotiations, etc., precluded our ability to reach this metric. By the end of Q2 2012 we anticipate having six (6) hubs interconnected and attached to ARE-ON's fiber backbone. Due to the delay of three (3) of our telehealth hubs we will temporarily locate these aggregation points in CAIs bringing the total number of hubs to nine (9). In addition, the awarded telecommunications vendors will provision all leased broadband healthcare facilities by Q2 2012.
	Subscribers receiving new access	0	The revised Baseline assumed that 43 subscribers would be served, however delay dependencies relative to issuance of FONSI, state requirements of posting of RFPs for 30 days, length of time required for vendor assessment, contract negotiations, etc., precluded our ability to reach this metric. By the end of Q2 2012 we anticipate having six (6) hubs interconnected and attached to ARE-ON's fiber backbone. Due to the delay of three (3) of our telehealth hubs we will temporarily locate these aggregation points in CAIs bringing the total number of hubs to nine (9). In addition, the awarded telecommunications vendors will provision all leased broadband healthcare facilities by Q2 2012.
	Subscribers receiving improved access	0	The revised Baseline correctly assumed that 0 subscribers would receive improved access. By the end of Q2 2012 we anticipate having six (6) hubs interconnected and attached to ARE-ON's fiber backbone. Due to the delay of three (3) of our telehealth hubs we will temporarily locate these aggregation points in CAIs bringing the total number of hubs to nine (9). In addition, the awarded telecommunications vendors will provision all leased broadband healthcare facilities by Q2 2012.
	Please identify the speed tiers that are available and the number or subscribers for each	0	---
Residential / Households	Entities passed	0	N/A
	Total subscribers served	0	N/A
	Subscribers receiving new access	0	N/A
	Subscribers receiving improved access	0	N/A
	Please identify the speed tiers that are available and the number of subscribers for each	0	N/A
Businesses	Entities passed	0	N/A
	Total subscribers served	0	N/A
	Subscribers receiving new access	0	N/A
	Subscribers receiving improved access	0	N/A

Subscriber Type	Access Type	Total	Narrative (describe your reasons for any variance from the baseline plan or any other relevant information)
	Please identify the speed tiers that are available and the number of subscribers for each	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
N/A	N/A	N/A	N/A	N/A

Project Indicators (Next Quarter)

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

Quarter 2 2012 is anticipated to include significant steps toward project completion. The UAMS BTOP team (consisting of project director, program managers, project specialists, technologists and other UAMS directors) expects to:

- Complete deployment (in place and operational) of telemedicine network connectivity.
- Complete coordination, installation & testing of leased broadband facilities for CAIs.
- Installation will be completed for:
 - Video infrastructure management system
 - 150 devices to aid in interactive video management and interactive video (IAV) mobility at the CAI;
 - connectivity devices/managed services for hubs and leased broadband facilities; and,
 - e-ICU (electronic intensive care unit) equipment and associated software.
- Deploy remaining 28 public access PCs.
- Finalize Public Safety contract piloting remote medicine via wireless in two ambulances.
- Troubleshoot technical questions from CAIs about connecting the e-Link network into their LAN.

Develop processes for:

- Internal notification (to CAIs) for when leased circuit facilities are tested and working.
- Coordination of dialing plan changes for CAIs.

- Program Managers will continue to visit sites and be available to field questions from CAIs about deployment process.

ARE-ON, the program's sub-recipient, providing fiber backbone for the network, reports these project accomplishments for completion during the next quarter:

- Completion of fiber construction
- Placement of nine (9) telecommunication huts
- Completion of optical networking and router/switch networking equipment procurement.
- Deployment of the equipment will begin with staging (racking, stacking, powering, fibering, software installation, and general testing) at a central location. Installation will then occur at the appropriate hut or campus site as those sites become available and as IRU fibers serving the site are delivered.

Estimated number of miles planned for deployment next quarter:

Construction miles: 9.65 Miles
 IRU Contracted Miles: 690.14
 Total Miles: 733.2 Miles

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).

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	72	---
2b.	Environmental Assessment	100	No additional charges are anticipated for Environmental Assessment resulting in a +5% variance against the revised Baseline projections.
2c.	Network Design	100	---
2d.	Rights of Way	0	N/A
2e.	Construction Permits and Other Approvals	9	---
2f.	Site Preparation	100	Site preparation for ARE-ON huts are projected to be completed in the next quarter.
2g.	Equipment Procurement	94	---
2h.	Network Build (all components - owned, leased, IRU, etc.)	67	---
2i.	Equipment Deployment	93	---
2j.	Network Testing	82	---
2k.	Other (please specify): Indirects, huts, easements, project management costs	40	---

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).

Challenges anticipated could include possible CAIs that move or close, particularly during deployment of leased broadband facilities. These shifts influence several changes to deployment plans. Due to the sheer number of CAIs receiving leased broadband facilities in Q2 2012, any delays by vendors could preclude our projections of CAIs connected via broadband.

Our sub-recipient, ARE-ON, anticipates that weather-related delays could occur through the Spring. While these delays have been factored in to estimates, as the construction projects reach completion in various cities, contractors will have less opportunity to shift personnel around and keep them busy as delays occur in an area.

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	\$2,653,828	\$0	\$2,653,828	\$3,385,052	\$431,840	\$2,953,212
b. Land, structures, right-of-ways, appraisals, etc.	\$10,711,692	\$9,851,632	\$860,060	\$2,202,902	\$0	\$2,202,902	\$4,699,099	\$1,295,520	\$3,403,579
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	\$1,949,839	\$0	\$1,949,839	\$3,492,963	\$0	\$3,492,963
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	\$15,124,668	\$0	\$15,124,668	\$30,159,180	\$0	\$30,159,181
j. Equipment	\$43,605,098	\$15,998,347	\$27,606,751	\$30,295,266	\$11,269,510	\$19,025,756	\$42,514,142	\$16,862,432	\$25,651,710
k. Miscellaneous	\$33,188,367	\$512,048	\$32,676,319	\$2,557,266	\$0	\$2,557,266	\$8,608,151	\$512,048	\$8,096,103
l. SUBTOTAL (add a through k)	\$128,581,820	\$26,450,427	\$102,131,393	\$54,783,769	\$11,269,510	\$43,514,259	\$92,858,587	\$19,101,840	\$73,756,748
m. Contingencies									
n. TOTALS (sum of l and m)	\$128,581,820	\$26,450,427	\$102,131,393	\$54,783,769	\$11,269,510	\$43,514,259	\$92,858,587	\$19,101,840	\$73,756,748

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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