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) 09-30-2013	**6. Is this the last Report of the Award Period?** ◉ **Yes** ○ **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 Suzanne Alstadt	**7c. Telephone (area code, number and extension)** X
	7d. Email Address sealstadt@uams.edu
7b. Signature of Certifying Official Submitted Electronically	**7e. Date Report Submitted (MM/DD/YYYY):** 03-28-2014

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 integrated two isolated existing networks (the Arkansas Telehealth Network (ATN) and the Arkansas Research and Education Optical Network (ARE-ON) to expand broadband capabilities and geographic reach for healthcare, higher education, public safety, & research. Arkansas e-Link was the name chosen to encompass the integration of both networks. This permitted broadband delivery and/or equipment at 458 "integrated network" community anchor institutions. Nationally, Arkansas ranks 46th in percentage of households with broadband access. At 15.6%, Arkansas has the 8th highest poverty rate in the United States. Nine of 13 major Arkansas cities have a poverty rate above the state average, demonstrating poverty in both urban and rural regions. By virtually every indicator, including economic growth, education, and health, Arkansas has one of the nation's most vulnerable populations.

BTOP funding provided community services at 458 locations in all 75 Arkansas counties including broadband circuits, increased bandwidth and/or new equipment. This provides increased access to real-time clinical consultations with remote specialists, virtual research collaboration and distance & continuing education. A transport medium was provided for hospital disaster preparedness, trauma, new cardiac services, e-ICU, high risk OB, Arkansas SAVES (stroke program), and healthcare services in correctional institutions. Arkansas's publicly-supported community college students may now enroll in distance education courses at the state's four-year universities. Fiber-grade Internet connections at public college or university campuses enable students to take online courses and join in research studies with fellow students and teachers across the state and world.

In Quarter 3 2013, the following activities were accomplished:

Outreach to CAIs and sustainability continued to be the project's primary focus. An overview and update was presented to the Public Health, Welfare and Labor Committee of the Arkansas Legislature in conjunction with the Federal Program Officer (FPO) visit. Broadband contract extensions with telecom providers were finalized. All conduit, fiber laterals and huts are completed. The remaining optical equipment and Juniper backbone routers are installed and in production. 100Mbps MPLS circuits are operational and in production at one 2-Year College (bringing the total to 3). Equipment for the redundant route between University of Arkansas for Medical Sciences (UAMS) and the University of Arkansas at Little Rock (UALR) was installed at 3 hub sites (bringing the total to 9 telemedicine hubs statewide).

University of Arkansas (UAS) reports these project accomplishments with regard to the telehealth network:
• Resolved installation issues at the last two CAIs.
• Completed implementation of video-conference scheduling system.
• Coordinated and hosted the FPO for the BTOP Best Practices Site Visit that included a project overview and status update, a project management review, CAI testimonials, tours of key AREON network facilities and selected CAIs, and discussion of grant close-out procedures.
• Finalized contract extension with telecom providers.
• Outreach activities: Provided testimony, BTOP overview and update to the Public Health, Welfare and Labor Committee of the Arkansas Legislature in conjunction with the site visit, allowing our FPO to testify.
• Program managers met with approximately 444 staff at 37 community anchor institutions (CAIs).
• Continued work toward completing development of operations for sustainability and working with CAIs to develop their own telemedicine applications.

ARE-ON, the program's sub-recipient, reports these project accomplishments:
• Placed final two huts into full production.
• Completed all lateral fiber and hut construction.
• Completed all optical network equipment installation and tuning.
• Completed all backbone routers installation and turn-up.
• All fiber routes now carrying production traffic.
• Installed leased circuits at the remaining 2-year community college (bringing the total to 3).
• Links to all community college networks are lit and backbone infrastructure in place.
• Began final cut-over of fiber-connected community college LANs to ARE-ON network links.

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**	100	---
2b.	**Environmental Assessment**	100	---

	Milestone	Percent Complete	Narrative (describe reasons for any variance from baseline plan or subsequent written updates provided to your program officer)
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	100	---
2h.	Network Build (all components - owned, leased, IRU, etc)	100	---
2i.	Equipment Deployment	100	---
2j.	Network Testing	100	---
2k.	Other (please specify): Indirects, huts, easements, project management costs	100	---

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).
N/A

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	49	As reported Q2 2013, upon review of numbers, a factual inconsistency was found. The original (total) 47.2 miles was changed to 48.4 miles. In addition, the project's engineering firm reconciled field records collected during construction and counts for feet of fiber and conduit with units placed during construction. Reconciliation of these records resulted in the correction of +0.75 mile to the overall length. Combined, these circumstances resulted in a final route total of 49.32 miles leaving a +2 mile variance. There were no route modifications resulting from the corrections.
New network miles leased	716	---
Existing network miles upgraded	0	N/A
Existing network miles leased	1,488	---
Number of miles of new fiber (aerial or underground)	49	Please see explanation above in "New network miles deployed".
Number of new wireless links	0	N/A
Number of new towers	0	N/A
Number of new and/or upgraded interconnection points	23	---

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).

UAS 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 32 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)
David Merrifield, Executive Director
155 S. Razorback Road
Fayetteville, AR 72101
479-575-5829

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

Subscriber Type	Access Type	Total	Narrative (describe your reasons for any variance from the baseline plan or any other relevant information)
Community Anchor Institutions (including Government institutions)	**Total subscribers served**	458	The revised baseline assumed that 266 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). Subscribers receiving improved access: 249 Telemedicine 133 Telemedicine* (FCC-funded) 32 Higher-Education 44 CAIs improved utilizing BTOP-funded equipment** - 35 Medical & Healthcare Providers - 8 Libraries - 1 Public Safety *Sites received BTOP-funded equipment; connected to network via FCC Pilot Program-funded broadband. **Sites received BTOP-funded equipment; connected through their parent organization's BTOP-funded broadband OR no connectivity funded.
	Subscribers receiving new access	0	---
	Subscribers receiving improved access	458	The revised baseline assumed that 266 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). Subscribers receiving improved access: 249 Telemedicine 133 Telemedicine* (FCC-funded) 32 Higher-Education 44 CAIs improved utilizing BTOP-funded equipment** - 35 Medical & Healthcare Providers - 8 Libraries - 1 Public Safety *Sites received BTOP-funded equipment; connected to network via FCC Pilot Program-funded broadband. **Sites received BTOP-funded equipment; connected through their parent organization's BTOP-funded broadband OR no connectivity funded.
	Please identify the speed tiers that are available and the number or subscribers for each	5	The (actual) speed tiers and number of subscribers for each: 1.5Mbps.. 296 10Mbps......80 100Mbps..... 8 1Gbps........21 10Gbps........9 TOTAL: 414 Note: Remaining 44 sites (35 Medical & Healthcare Providers, 8 Libraries, and 1 Public Safety) which brings our total to 458 sites, received BTOP-funded equipment but are using their own connectivity. Therefore, these sites are not included in the speed tier calculations.
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	0	N/A

Subscriber Type	Access Type	Total	Narrative (describe your reasons for any variance from the baseline plan or any other relevant information)
	subscribers for each		
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
	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).

Co-location space and power is available at network fiber huts.

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
Northwest Arkansas Community College	Bentonville	Higher Education	Yes	NWACC is connected via DWDM optical technology with dual 1 Gbps waves to the ARE-ON backbone from which it receives Internet and research network services.
North Arkansas College	Harrison	Higher Education	Yes	NAC is connected via DWDM optical technology with dual 1 Gbps waves to the ARE-ON backbone from which it receives Internet and research network services.
Arkansas State University at Mountain Home	Mountain Home	Higher Education	Yes	ASUMH is connected via DWDM optical technology with dual 1 Gbps waves to the ARE-ON backbone from which it receives Internet and research network services.
Ozarka College	Melbourne	Higher Education	Yes	Ozarka is connected via DWDM optical technology with dual 1 Gbps waves to the ARE-ON backbone from which it receives Internet and research network services.
University of Arkansas Community College at Batesville	Batesville	Higher Education	Yes	UACCB is connected via DWDM optical technology with dual 1 Gbps waves to the ARE-ON backbone from which it receives Internet and research network services.
Black River Technical College	Pocahontas	Higher Education	Yes	BRTC is connected via DWDM optical technology with dual 1 Gbps waves to the ARE-ON backbone from which it receives Internet and research network services.
Arkansas State University at Newport	Newport	Higher Education	Yes	ASUN is connected via DWDM optical technology with dual 1 Gbps waves to the ARE-ON backbone from which it receives Internet and research network services.
Arkansas State University at Beebe	Beebe	Higher Education	Yes	ASUB is connected via DWDM optical technology with dual 1 Gbps waves to the ARE-ON backbone from which it receives Internet and research network services.

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
Midsouth Community College	West Memphis	Higher Education	Yes	MSCC is connected via DWDM optical technology with dual 1 Gbps waves to the ARE-ON backbone from which it receives Internet and research network services.
East Arkansas Community College	Forrest City	Higher Education	Yes	EACC is connected via DWDM optical technology with dual 1 Gbps waves to the ARE-ON backbone from which it receives Internet and research network services.
Southeast Arkansas College	Pine Bluff	Higher Education	Yes	SEARK is connected via DWDM optical technology with dual 1 Gbps waves to the ARE-ON backbone from which it receives Internet and research network services.
South Arkansas Community College	El Dorado	Higher Education	Yes	SACC is connected via DWDM optical technology with dual 1 Gbps waves to the ARE-ON backbone from which it receives Internet and research network services.
Southern Arkansas University Tech	Camden	Higher Education	Yes	SAU Tech is connected via DWDM optical technology with dual 1 Gbps waves to the ARE-ON backbone from which it receives Internet and research network services.
University of Arkansas Community College at Hope	Hope	Higher Education	Yes	UACCH is connected via DWDM optical technology with dual 1 Gbps waves to the ARE-ON backbone from which it receives Internet and research network services.
National Park Community College	Hot Springs	Higher Education	Yes	NPCC is connected via DWDM optical technology with dual 1 Gbps waves to the ARE-ON backbone from which it receives Internet and research network services.
College of the Ouachitas	Malvern	Higher Education	Yes	COTO is connected via DWDM optical technology with dual 1 Gbps waves to the ARE-ON backbone from which it receives Internet and research network services.
Pulaski Technical College	Little Rock	Higher Education	Yes	PTC is connected via DWDM optical technology with dual 1 Gbps waves to the ARE-ON backbone from which it receives Internet and research network services.
University of Arkansas Community College of Morrilton	Morrilton	Higher Education	Yes	UACCM is connected via DWDM optical technology with dual 1 Gbps waves to the ARE-ON backbone from which it receives Internet and research network services.
Phillips Community College of the University of Arkansas	Helena	Higher Education	Yes	PCCUA is connected via DWDM optical technology with dual 1 Gbps waves to the ARE-ON backbone from which it receives Internet and research network services.
CHCA-Lee County Cooperative Clinic-Lake View Satellite Clinic	Wabash	Medical and Healthcare Providers	No	Telemedicine
AAI-South Arkansas Center on Aging	El Dorado	Medical and Healthcare Providers	No	Telemedicine
Fulton County Hospital	Salem	Medical and Healthcare Providers	No	Telemedicine
WACG-Western Arkansas Counseling & Guidance	Waldron	Medical and Healthcare Providers	No	Telemedicine
AAI-Texarkana Regional Center on Aging	Texarkana	Medical and Healthcare Providers	No	Telemedicine
CAI-Counseling Associates	Clarksville	Medical and Healthcare Providers	No	Telemedicine
CAI-Counseling Associates	Conway	Medical and Healthcare Providers	No	Telemedicine

CAI-Counseling Associates	**Morrilton**	**Medical and Healthcare Providers**	**No**	**Telemedicine**
CHCA-Boston Mountain Rural Health Center	**Yellville**	**Medical and Healthcare Providers**	**No**	**Telemedicine**
Mainline Health Systems-Monticello Community Health Center	**Monticello**	**Medical and Healthcare Providers**	**No**	**Telemedicine**
Kids First-Pine Bluff	**Pine Bluff**	**Medical and Healthcare Providers**	**No**	**Telemedicine**
Mid-South Health Systems-Jonesboro-Browns Lane	**Jonesboro**	**Medical and Healthcare Providers**	**No**	**Telemedicine**

Project Indicators (Next Quarter)

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

Now that the BTOP grant project is complete, there is evidence of its impact in several rural communities. Examples of expanded telehealth services being offered as a result of the grant include: cardiac care provided by cardiologists to rural areas, behavioral health consultations with inmates in city jails, and expansion of the e-ICU services to rural hospitals. There is increased interest in receiving required continuing education through distance learning for healthcare providers in rural locations and collaborations between colleges offering health curriculum and healthcare providers. In the uncertain climate of healthcare reimbursement, Arkansas BTOP grant recipients are looking for ways to become streamlined and collaborative in how business is conducted.

Telehealth reimbursement continues to be an issue in Arkansas. To further this cause, an Arkansas State Senator who chairs the Legislative Committee on Public Health, Welfare, and Labor has drafted a bill and anticipates it will be introduced by the end of the year. This bill will begin a year-long Interim Study Proposal seeking legislative support of telehealth reimbursement. Many of the grant recipients will be interviewed as stakeholders before the committee. The success of this legislation could significantly impact the long-term viability of this program.

UAMS successfully led the Arkansas Telehealth Network coalition in receiving a grant for the USAC Rural Healthcare Pilot Project. We have received approval from NTIA and FCC to migrate the Arkansas e-Link membership into the new FCC Healthcare Connect Fund program as a consortium. UAMS will lead this consortium. Approved entities may obtain 65% discounts for eligible expenses, thus benefiting current and future network participants, as well as positively impacting the future network growth.

ARE-ON is a non-commercial state entity and therefore it is subject to legal restrictions on the customers it may serve and the manner in which it may serve them. Within the constraints of the law, ARE-ON will continue to seek new uses of its fiber network from state and non-commercial/non-profit entities such as: higher education institutions, public schools, public libraries, state, county, and local government, the Division of Agriculture of the University of Arkansas, and potentially a federal research laboratory located within the state.

Finally, the broadband expansion has also provisioned more competitiveness among telecom companies. This has positioned telecommunications providers to extend services to Arkansas consumers in many rural areas.

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**	0	N/A
2b.	**Environmental Assessment**	0	N/A
2c.	**Network Design**	0	N/A
2d.	**Rights of Way**	0	N/A
2e.	**Construction Permits and Other Approvals**	0	N/A
2f.	**Site Preparation**	0	N/A

	Milestone	Planned Percent Complete	Narrative (describe reasons for any variance from baseline plan or any other relevant information)
2g.	Equipment Procurement	0	N/A
2h.	Network Build (all components - owned, leased, IRU, etc.)	0	N/A
2i.	Equipment Deployment	0	N/A
2j.	Network Testing	0	N/A
2k.	Other (please specify):	0	N/A

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).

N/A

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.

Cost Classification	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		
	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	$10,742,058	$88,400	$10,653,658	$10,742,617	$88,400	$10,654,217
b. Land, structures, right-of-ways, appraisals, etc.	$10,711,692	$9,851,632	$860,060	$13,784,726	$8,368,720	$5,416,006	$13,784,726	$8,368,720	$5,416,006
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	$3,266,467	$0	$3,266,467	$3,266,467	$0	$3,266,467
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	$25,134,127	$0	$25,134,127	$25,134,127	$0	$25,134,127
j. Equipment	$43,605,098	$15,998,347	$27,606,751	$45,326,575	$17,481,259	$27,845,316	$45,326,575	$17,481,259	$27,845,316
k. Miscellaneous	$33,188,367	$512,048	$32,676,319	$30,327,308	$512,048	$29,815,260	$30,327,308	$512,048	$29,815,260
l. SUBTOTAL (add a through k)	$128,581,820	$26,450,427	$102,131,393	$128,581,261	$26,450,427	$102,130,834	$128,581,820	$26,450,427	$102,131,393
m. Contingencies									
n. TOTALS (sum of l and m)	$128,581,820	$26,450,427	$102,131,393	$128,581,261	$26,450,427	$102,130,834	$128,581,820	$26,450,427	$102,131,393

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