AWARD NUMBER: NT10BIX5570102

DATE: 11/20/2012

OMB CONTROL NUMBER: 0660-0037 EXPIRATION DATE: 12/31/2013

QUARTERLY PERFORMANCE PROGRESS REPORT FOR BROADBAND INFRASTRUCTURE PROJECTS								
General Information								
Federal Agency and Organizational Element to Which Report is Submitted	2. Award Identific	ation Number		3. DUNS Number				
Department of Commerce, National Telecommunications and Information Administration	NT10BIX557010	02		122452563				
4. Recipient Organization								
University of Arkansas System 4301 W. Markhar	m St, ST63, Little I	Rock, AR 7220	)5-7101					
5. Current Reporting Period End Date (MM/DD/YYY	Y)	6. Is this the la	ast Repor	rt of the Award Period?				
09-30-2012				○ Yes ● No				
7. Certification: I certify to the best of my knowledg purposes set forth in the award documents.	e and belief that th	is report is corr	rect and o	complete for performance of activities for the				
7a. Typed or Printed Name and Title of Certifying O	fficial	7c.	Telephor	ne (area code, number and extension)				
Suzanne Alstadt		X						
		7d.	Email Ac	ddress				
		sea	alstadt@	uams.edu				
7b. Signature of Certifying Official		7e.	7e. Date Report Submitted (MM/DD/YYYY):					
Submitted Electronically		11-	11-20-2012					

DATE: 11/20/2012

OMB CONTROL NUMBER: 0660-0037 EXPIRATION DATE: 12/31/2013

## **Project Indicators (This Quarter)**

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

The University of Arkansas (U of A) 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 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. An Award Action Request (AAR) was submitted 10/22/2012 to the Broadband Infrastructure program office to provide address changes for Community Anchor Institutions (CAIs) that have moved and corrections to addresses previously submitted.

In Quarter 3 2012, the following activities were undertaken or accomplished to meet the mission described above:

## Overall Project

July 11, 2012, a verbal temporary stop-work order was issued by the National Telecommunications and Information Administration (NTIA) and the National Oceanic and Atmospheric Administrative (NOAA). This was followed up with a written temporary stop-work order dated August 3, 2012. Activities were restricted to duties associated with the response of the Corrective Action Plan (CAP), security of grant-funded property to protect it against loss, damage, or theft, and management and administration of the grant. The UAS ceased disallowed activities in compliance with this work stoppage. In a letter dated September 10, 2012, the National Telecommunications and Information Administration (NTIA) and the National Oceanic and Atmospheric Administrative (NOAA) issued an amendment to lift the temporary stop-work order and also issued a partial temporary stop-work order - prohibiting project implementation and construction activities conducted by ARE-ON.

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

- Duties associated with the response to the Corrective Action Plan (CAP) and subsequent requests for additional information
- Management and administration of the grant.
- Began Phase II deployment of IAV equipment to 158 Telemedicine CAIs & migration to the network.
- Continuance of MVP (Mobile Virtual Physician) contract for completion.
- Quarterly report preparation

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

- Construction and installation was halted on July 11, 2012 with the exception of:
  - any work required for human safety such as covering or filling holes or ditches
  - security (changing locks and periodic site visits)
- asset protection (ensuring HVAC and generators were working properly for sites in which equipment was already installed).
- IRU providers continued to deliver on project milestones, completing at least 565 of 716 total miles (79.0%) by the end of the reporting quarter. This was allowed as validated by the FPO in a verbal conversation on August 27, 2012, and also in writing via an FPO e-mail dated September 18, 2012.
- 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)
			This section of the Performance Project Report compares actual expenditures to the Quarter 3 2012 figures on the revised Baseline submitted to the project's Federal Program Officer on May 24, 2011.
			Due to the temporary suspension order by NTIA on July 11, 2012, the telemedicine portion of the project experienced delays in contract negotiations for Mobile Virtual Physician (MVP), installation/testing of video infrastructure management equipment and deployment of interactive video equipment (IAV) to the remaining Telemedicine CAIs. We expect the contract to be finalized, installation/testing of the video infrastructure management equipment and deployment of IAVs to remaining CAIs to be completed by the end of the next reporting quarter.
2a.	Overall Project	76	

AWARD NUMBER: NT10BIX5570102

DATE: 11/20/2012

OMB CONTROL NUMBER: 0660-0037 EXPIRATION DATE: 12/31/2013

	Milestone	Percent Complete	Narrative (describe reasons for any variance from baseline plan or subsequent written updates provided to your program officer)
2c.	Environmental Assessment  Network Design  Rights of Way	100	ARE-ON, the program's sub-recipient, has contracted for Indefeasible Rights of Use (IRUs) from four providers over 17 intercity fiber routes. Most of the IRU contracts have milestone payments based on completion of various tasks, with the final milestone payment planned once the fiber has been delivered and tested. The final milestone payment for all IRUs is expected to be reached Q4 2012. 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.  Collectively, these circumstances resulted in a -11% variance.   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.
Zu.	INGINS OF Way	U	
2e.	Construction Permits and Other Approvals	9	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. We believe that we have completed 100% of all construction permits, ROW permits, railroad crossing permits, city permits, and highway permits. We anticipate no additional charges for permits.
2f.	Site Preparation	0	N/A
2g.	Equipment Procurement	89	Due to the temporary suspension order by NTIA on July 11, 2012, procurement of clinical assessment tools (peripherals), IAV management devices, and video infrastructure systems were delayed. However, some payments occurred during the quarter but outside the stop-work order period. Procurement of these items are expected to be complete by the end of the next reporting quarter. The variance for Q3 2012 is -8%.
2h.	Network Build (all components - owned, leased, IRU, etc)	68	Construction was halted with the temporary suspension order by NTIA on July 11, 2012. ARE-ON's IRU providers have completed and invoiced 565.80 of 715.89 miles of IRU fiber. The totals of both bring the project to 598.10 of 749.13 miles.  The variance for Q3 2012 is -13%.
2i.	Equipment Deployment	89	At this point, deployment of equipment has consisted of: optical equipment at 3 of 39 sites (~8%), 2 of 10 core network routers (20%), 0 of 2 access routers (0%), 0 of 16 Ethernet switches (0%), 0 of 28 security gateways, 0 of 1 remote access servers (0%), 0 of 2 network management servers (0%), and 0 of 2 iSCSI storage arrays (0%).  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. Last quarter, we reported a 99% actual and we since discovered that should have been 89%. The variance is -5%.
			The revised Baseline assumed that video infrastructure management equipment would have been installed and tested, however the temporary suspension of July 11, 2012 caused delays in procurement and installation. We expect the contract to be finalized and installation of the video infrastructure management equipment completed by the end of the next reporting quarter.
2j.	Network Testing	60	Additionally, ARE-ON had begun preliminary testing of optical equipment and the two core network routers deployed at Dallas and Hope prior to

RECIPIENT NAME: University of Arkansas System

AWARD NUMBER: NT10BIX5570102

OMB CONTROL NUMBER: 0660-0037 DATE: 11/20/2012 EXPIRATION DATE: 12/31/2013

	Milestone	Percent Complete	Narrative (describe reasons for any variance from baseline plan or subsequent written updates provided to your program officer)					
			the temporary suspension. The remaining optical and router equipment is expected to be deployed over the next two quarters as lateral construction, hut construction, and IRU routes are completed.					
			Overall, these circumstances resulted in a -6% variance.					
2k	Indirects, huts, Other (please specify): easements, project management costs	65	No progress was made on the number of hut placements due to the temporary suspension resulting in a -6% variance.					

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).

Due to the temporary suspension, there have been numerous challenges to re-engaging the project and managing it to a successful completion. The project is now being managed as aggressively as possible with plans for acceleration in critical steps.

The installation/testing of video infrastructure management equipment and deployment of interactive video units was delayed. In addition, contract negotiations for Mobile Virtual Physician (MVP) were ceased during Q3 2012. Our sub-recipient, ARE-ON, had halted its construction activities. The work stoppage resulted in subcontractors' work crews being diverted to other projects or laid off. As the suspension is lifted, ramping up requires re-engagement and reassignment of the work crews and replacing supervisors. Also, work will extend into the winter months where weather-related delays could possibly occur. The hut manufacturer will need to adjust its production schedule to accommodate the project's huts.

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	484	
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	

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

RECIPIENT NAME: University of Arkansas System

AWARD NUMBER: NT10BIX5570102

OMB CONTROL NUMBER: 0660-0037 DATE: 11/20/2012 EXPIRATION DATE: 12/31/2013

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 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	244	
	Subscribers receiving new access	0	N/A
	Subscribers receiving improved access	244	
	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

AWARD NUMBER: NT10BIX5570102

DATE: 11/20/2012

OMB CONTROL NUMBER: 0660-0037

DATE: 11/20/2012				EXPIRATION DATE: 12/31/2013		
Subscriber Type		Access Type	Tota	Narrative (describe your reasons for any variance from the baseline plan or any other relevant information)		
Businesses	Entities pass	ed	0	N/A		
	Total subscri	bers served	0	N/A		
	Subscribers i	eceiving new acc	ess 0	N/A		
	Subscribers i	eceiving improve	d access 0	N/A		
		fy the speed tiers the number of or each	that are	N/A		
7. Please describe any N/A	special offering	ngs you may provi	de (600 words or le	⇒ss).		
8a. Have your network	management <sub> </sub>	practices changed	l over the last quar	rter? O Yes • No		
8b. If so, please descri N/A	be the change	s (300 words or le	ss).			
connected to your network cumulatively). Also income	please provide ork as a resuli licate whether	t of BTOP funds. I your organization	Figures should be is currently provid	nity anchor institutions (including Government institutions) reported for the most recent reporting quarter only (NOT ding broadband service to the anchor institution. Finally, provide TOP-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 BTC funded infrastructure		
0	0	0	0	N/A		
Project Indicators (Nex	rt Quarter)					
1. Please describe sign The projections were		•	•	pletion during the next quarter (600 words or less). 2.		
It is projected that 152	Telemedicine	e CAIs will be con	nected during the	next quarter.		
Overall, the cumulative 33 Higher Education 13 Telemedicine CAI 408 Telemedicine CAI 20 Telemedicine CAI 474 CAIs for the grant	CAIs (to be considered expressions)  s (provided expressions) s that have considered expressions.	onnected by end quipment only) quipment and cor	nnectivity)			
Previous projections w temporary suspension clearance to resume of workers and supervisor	vere to complet at the beginn construction is ors are re-assi be remaining he	ete fiber lateral co ing of the quarter given, ARE-ON's gned to this proje uts into its produc	onstruction and pla r has resulted in si s contractor and si ect or new workers	hments are planned for completion during the next quarter: ace the final huts during this past reporting quarter, but the ignificant delay in all construction. Depending on when ubcontractors will require time to ramp up activities while is are hired. The prefab hut manufacturer will also have to rese uncertainty of the schedule makes it difficult to estimate		

Construction miles: Fiber lateral construction should be approximately 99% complete (46.75 of 47.05 miles). IRU contracted miles: 715.89 miles projected by providers for delivery Q4 2012 - 100% complete

RECIPIENT NAME: University of Arkansas System

AWARD NUMBER: NT10BIX5570102

OMB CONTROL NUMBER: 0660-0037 DATE: 11/20/2012 EXPIRATION DATE: 12/31/2013

Total Miles: 762.94 miles (47.05 lateral fiber miles + 715.89 IRU fiber miles).

Hut placement: Two additional (13 of 16 total) huts will be placed

ARE-ON engineers plan to hot stage all equipment during the quarter with anticipated preliminary deployment of equipment to begin in the first quarter of calendar year 2013.

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	84	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	The Environmental Assessment was completed in June 2011. No additional costs were anticipated. However, as a result of the CAP, we were directed to enter into new consultations with the State Historic Preservation Office (SHPO).
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	92	
2h.	Network Build (all components - owned, leased, IRU, etc.)	81	
2i.	Equipment Deployment	93	
2j.	Network Testing	100	
2k.	Indirects, huts, easements, Other (please specify): project management costs	71	

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 prior to or during deployment of leased broadband facilities. These shifts influence several changes to deployment plans. Any unforeseen delays by vendors could preclude our projections of CAIs connected via broadband. The stop-work order has delayed the telemedicine deployment approximately 2 months.

Our sub-recipient, ARE-ON, reports the greatest challenge to the schedule is the delay resulting from the temporary suspension and the amount of time needed by the contractors to revamp their worker force, equipment, and supervisors to resume full construction. In addition, the suspension has pushed the schedule into the winter months during which we can anticipate weather delays and days when the ground is too wet to work. Since most of the construction is complete, it is less likely that contractors can simply move crews to subprojects in other parts of the state since there are fewer sites under construction. Finally, it is anticipated that some re-work will have to be done with site preparations due to deterioration of grounds around foundations from rain washout, etc.

DATE: 11/20/2012

OMB CONTROL NUMBER: 0660-0037 EXPIRATION DATE: 12/31/2013

## 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					from Project on nd of Current 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	\$7,491,920	\$0	\$7,491,920	\$8,396,699	\$528,771	\$7,867,928
b. Land, structures, right-of-ways, appraisals, etc.	\$10,711,692	\$9,851,632	\$860,060	\$5,935,408	\$2,655,255	\$3,280,153	\$8,872,980	\$4,006,388	\$4,866,592
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	\$2,383,964	\$0	\$2,383,964	\$3,121,384	\$0	\$3,121,384
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	\$21,893,236	\$0	\$21,893,236	\$23,003,135	\$0	\$23,003,135
j. Equipment	\$43,605,098	\$15,998,347	\$27,606,751	\$41,655,641	\$16,844,269	\$24,811,372	\$44,068,320	\$18,325,883	\$25,742,437
k. Miscellaneous	\$33,188,367	\$512,048	\$32,676,319	\$17,920,845	\$512,048	\$17,408,797	\$20,388,754	\$484,694	\$19,904,060
I. SUBTOTAL (add a through k) m. Contingencies	\$128,581,820	\$26,450,427	\$102,131,393	\$97,281,014	\$20,011,572	\$77,269,442	\$107,851,272	\$23,345,736	\$84,505,536
n. TOTALS (sum of I and m)	\$128,581,820	\$26,450,427	\$102,131,393	\$97,281,014	\$20,011,572	\$77,269,442	\$107,851,272	\$23,345,736	\$84,505,536

<sup>2.</sup> 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