

RECIPIENT NAME:MCNC

AWARD NUMBER: NT10BIX5570011

DATE: 11/28/2012

OMB CONTROL NUMBER: 0660-0037

EXPIRATION DATE: 12/31/2013

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 NT10BIX5570011	3. DUNS Number 018946590
4. Recipient Organization MCNC 3021 Cornwallis Road, Research Triangle Park, NC 27709-2889		
5. Current Reporting Period End Date (MM/DD/YYYY) 09-30-2012	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 Patricia Moody Chief Financial Officer	7c. Telephone (area code, number and extension) 9192481820	
	7d. Email Address pmoody@mcnc.org	
7b. Signature of Certifying Official Submitted Electronically	7e. Date Report Submitted (MM/DD/YYYY): 11-28-2012	

Project Indicators (This Quarter)

1. Please describe significant project accomplishments completed during this quarter (600 words or less).
 MCNC continued working toward completion of the additional project elements approved by NTIA during the prior quarter. We executed on IRU agreements with providers for 23 miles that will serve 9 CAI's. Construction on the remaining 30 miles as part of the savings request with nearly 1/2 complete from a conduit perspective during the quarter, but no fiber was placed. Ordering of equipment related to the 100G core upgrade request commenced with much of the equipment starting to arrive by quarter end for deployment during the rest of the calendar 2012 year.

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	91	As the project was initially outlined and funded, we are 100% complete from a deployment perspective. The spend rate relative to the now approved budget and partial completion of those tasks associated with the additional builds we are at 91% complete.
2b.	Environmental Assessment	100	This task is 100% complete.
2c.	Network Design	100	This task is 100% complete.
2d.	Rights of Way	100	This task is 100% complete.
2e.	Construction Permits and Other Approvals	100	This task is 100% complete.
2f.	Site Preparation	100	This task is 100% complete.
2g.	Equipment Procurement	96	All original equipment outlined in the original proposal has been deployed. Equipment related to the additional CAI's and 100G upgrades is nearing completion.
2h.	Network Build (all components - owned, leased, IRU, etc)	89	As it relates to dollars spent on the project, we are at 89% complete. Last quarter's number was reported at 95% in error, as that was based on miles. Last quarter's number based on dollars should have been 88%. The total number of new miles being built in the project is 444 and the total number of miles to be acquired is 314. With newly built miles and newly acquired miles considered, we are at 728 miles complete of 758 miles, or 96% complete.
2i.	Equipment Deployment	90	All original equipment outlined in the original proposal has been deployed. Equipment related to the additional CAI's is pending and will occur toward the end of the calendar year.
2j.	Network Testing	95	Relative to the additional miles added to the project during the quarter to the overall number initially funded in the project and now in operation we stand at 95% complete, and thus 95% tested.
2k.	Other (please specify):	0	N/A

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).
 No significant challenges in continuing on the execution of the project were experienced.

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	414	The 414 miles represented here matches the amount of mileage reported last quarter. Baseline would have projected 467.1 miles for this quarter, but included miles that NTIA allowed to be acquired under IRU (indefeasible right to use) once the project began. The 414 miles represented here are the final constructed miles in the originally approved project after final engineering and builds were complete. The additional routes approved by the NTIA last quarter represent 30 additional miles, but none of that fiber has yet been completed and thus is not shown yet. 13.5 miles of the conduit has been completed.
New network miles leased	314	Our projections on network miles leased have been inaccurate due to misinterpretation of network miles leased versus network miles upgraded in our baseline projections. The total of 314 miles is made up of 197 from ERC and FRC routes communicated in the original application, 61 from the Morris Broadband acquisition, and 33 from the Balsam and Plateau IRU's approved during the project. The additional 23 miles as approved in the savings request have now been added for a total of 314 miles. This number will always be less than the final projection of 420 due to misunderstanding of accounting of these miles at baseline completion.
Existing network miles upgraded	197	These miles represent fiber that MCNC already had the rights to via IRU and presented in the project and BTOP funded the equipment. Baseline always showed 0 throughout the project and were moved from the "network miles leased" area here in a previous quarter.
Existing network miles leased	0	N/A
Number of miles of new fiber (aerial or underground)	414	This mileage represents the final constructed miles of the project as initially funded. Over the next two quarters the amount will increase due to the newly approved CAI connections.
Number of new wireless links	0	N/A
Number of new towers	0	N/A
Number of new and/or upgraded interconnection points	1,100	We are ahead of baseline as this number is representative of all splice enclosures and hand holds on the route, which enable interconnect points. This number will settle in around 1125 when all builds are fully complete.

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	2
Number of agreements currently being negotiated with broadband wholesalers or last mile providers	5
Average term of signed agreements (in quarters)	80

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

MCNC has signed agreements for an approved swap with ERC and FRC as part of the project that was defined at application. We also signed an agreement with Haywood County Government on a 5 year lease of fibers in the western portion of the project over a short 2 mile segment of the route. Because this is not a wholesaler we do not include in the numbers above.

FRC, our subrecipient, has now signed an agreement with Pangea for access to fibers as reported in the last quarter. They have also

been discussing agreements with Dukenet Communications for fibers in the route but final contracts are not signed. Terms are agreed to but the delay at this point is now related to collocation availability on the route by FRC to Dukenet. It is anticipated these issues will be worked through.

MCNC is exploring additional agreements with ERC for more fibers they would IRU along the BTOP route than originally planned. Contract is expected to sign in October.

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:

MCNC is not providing wholesale services. The Agreements and providers noted above will be providing wholesales services as these agreements are formalized and these providers begin deploying equipment and services in those regions.

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).

FRC has been contracted to provide fiber maintenance (locates and break/fix) on the fiber. Now that construction is complete, they have assumed this responsibility. They will provide route maintenance on 100% of the newly constructed fiber. On fiber assets that they retain in the new fiber footprint, they will be in a position to provide wholesale services to other wholesale carriers, last mile carriers, and private enterprise. MCNC will be focused on the education, government, and public health sectors.

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	2	Discussions continue between FRC and Dukenet, but nothing is formally signed between these as of yet. While lower to baseline, we do expect further agreements to materialize now that the route is completed and discussions to leverage portions of both project footprints make some areas more viable.
	Providers with signed agreements receiving improved access	1	In advance of FRC lighting portions of the route on their own for the fibers they acquired in the route, they have contracted with MCNC for the next year to provide a 10Gbps lambda between New Bern and Wilmington on the MCNC network.
	Providers with signed agreements receiving access to dark fiber	2	Discussions continue between FRC and Dukenet but nothing formally signed between these entities. We are lower to baseline but have seen more interest due to the round 2 network being marketed with the round 1 network now. We have discovered that some interest is there, but didn't start becoming more apparent until route was close to completion.
	Please identify the speed tiers that are available and the number of subscribers for each	0	To date, no wholesalers have signed on to provide wholesale lit services. Once this occurs, we would anticipate a provider that can provide services from 10M to 100G as required.
Community Anchor Institutions (including Government institutions)	Total subscribers served	1,870	As our understanding of the reporting requirements refined during the project, we now know that projections in our initial application and baseline are inaccurate due to misinterpretation of the guidance. Initial projections were based on community anchor institutions located in the counties in which our fiber route passes through, but not necessarily on-net with the North Carolina Research and Education Network (NCREN) today. Based on the clarifications from a previous quarter, what we report here are CAI's that were already connected to the NCREN backbone in some capacity that have received improved access due to the deployment of fiber and higher grades of service (i.e. 10Gbps internet service) out of NCREN maintained facilities. The newly funded direct fiber connections to the 20 additional CAI's are not yet included in this count as the construction has not yet commenced or IRU's fully accepted..
	Subscribers receiving new access	0	Now that the NTIA has approved 54 miles of additional builds or acquisition there will be 20 more CAI's receiving direct fiber access. These efforts started this past quarter.

Subscriber Type	Access Type	Total	Narrative (describe your reasons for any variance from the baseline plan or any other relevant information)
	Subscribers receiving improved access	1,870	As our understanding of the reporting requirements refined during the project, we now know that projections in our initial application and baseline are inaccurate due to misinterpretation of the guidance. Initial projections were based on community anchor institutions located in the counties in which our fiber route passes through, but not necessarily on-net with the North Carolina Research and Education Network (NCREN) today. Based on the clarifications from a previous quarter, what we report here are CAI's that were already connected to the NCREN backbone in some capacity that have received improved access due to the deployment of fiber and higher grades of service (i.e. 10Gbps internet service) out of NCREN maintained facilities.
	Please identify the speed tiers that are available and the number or subscribers for each	0	None of the improved access is due to directly connected CAI's but rather an improved middle mile infrastructure. That infrastructure has capability for 100G. On the system deployed, direct point to point services as shown below are possible: 100M, 250M, 500M, increments of 1G, 10G, 100G.
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
	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).
 We are able to provide lambda based point to point based circuits between all NCREN POP's enabled by the new infrastructure and to portions of the central core (defined as the Charlotte to Raleigh corridor) of the NCREN network that existed prior to application.

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

8b. If so, please describe the changes (300 words or less).
 We have now implemented our mapping software that allows us to have a better ability to track where our fiber assets are in the field. As it relates to providing access or specific services on the network, that has not changed.

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?	Narrative description of how anchor institutions are using BTOP-funded infrastructure

			(Yes / No)	
See Addendum	See Addendum	See Addendum	See Addendum	See Addendum

Project Indicators (Next Quarter)

1. Please describe significant project accomplishments planned for completion during the next quarter (600 words or less).
 We anticipate completing the balance of the round 1 project additional requests that were approved by the NTIA in the June reporting quarter. This includes the addition of 54 miles and full equipment deployment associated with those 20 CAI's.

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	96	We anticipate this task will complete, but relevant to dollars spent, we will still be under budget and thus complete relative to dollars at 96%
2b.	Environmental Assessment	100	This task is 100% complete.
2c.	Network Design	100	This task is 100% complete.
2d.	Rights of Way	100	This task is 100% complete.
2e.	Construction Permits and Other Approvals	100	This task is 100% complete.
2f.	Site Preparation	100	This task is 100% complete.
2g.	Equipment Procurement	100	We anticipate this task completing.
2h.	Network Build (all components - owned, leased, IRU, etc.)	95	We anticipate this task completing during the quarter as awarded, but relevant to budget being under that which was anticipated and thus approved to be at 95% complete based on dollars spent.
2i.	Equipment Deployment	100	We anticipate this task completing.
2j.	Network Testing	100	We anticipate this task completing.
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).
 We do not anticipate any challenges in completing the project as approved.

