

RECIPIENT NAME:MCNC

AWARD NUMBER: NT10BIX5570011

DATE: 11/22/2011

OMB CONTROL NUMBER: 0660-0037

EXPIRATION DATE: 12/31/2013

### QUARTERLY PERFORMANCE PROGRESS REPORT FOR BROADBAND INFRASTRUCTURE PROJECTS

#### General Information

<b>1. Federal Agency and Organizational Element to Which Report is Submitted</b>  Department of Commerce, National Telecommunications and Information Administration	<b>2. Award Identification Number</b>  NT10BIX5570011	<b>3. DUNS Number</b>  018946590
<b>4. Recipient Organization</b>  MCNC 3021 Cornwallis Road, Research Triangle Park, NC 27709-2889		
<b>5. Current Reporting Period End Date (MM/DD/YYYY)</b>  09-30-2011	<b>6. Is this the last Report of the Award Period?</b>  <input type="radio"/> Yes <input checked="" type="radio"/> No	
<b>7. Certification: I certify to the best of my knowledge and belief that this report is correct and complete for performance of activities for the purposes set forth in the award documents.</b>		
<b>7a. Typed or Printed Name and Title of Certifying Official</b>  Patricia Moody  Chief Financial Officer	<b>7c. Telephone (area code, number and extension)</b>  9192481820	
	<b>7d. Email Address</b>  pmoody@mcnc.org	
<b>7b. Signature of Certifying Official</b>  Submitted Electronically	<b>7e. Date Report Submitted (MM/DD/YYYY):</b>  11-22-2011	

**Project Indicators (This Quarter)**

**1. Please describe significant project accomplishments completed during this quarter (600 words or less).**  
 While we had forecasted on the last quarterly report completion of all construction activities of the 413 engineered conduit miles during this quarter, we encountered difficulty in doing so due to hitting the toughest terrain in the project in the mountains. By the end of the quarter 395 miles (95.7%) of conduit construction were complete, with placement of 205 miles of fiber within those 395 miles of conduit completed. The single most significant milestone for the quarter was the successful deployment of equipment on a 52 mile segment between Rocky Mount and Greenville that provided an upgraded 10Gbps IP path for a portion of the eastern part of North Carolina. The bulk of activity within the project now centers around project oversight and preparing for equipment deployment. For the October -December quarter we anticipate completing all construction activities and placing several more spans of the recently completed construction in to service. Our goal is to complete all portions of the project as awarded by December, but in reality it may slip to January 2012. The total project is currently about one year ahead of schedule and projected to be favorable to budget by 12.5% based on delivery of project as awarded.

**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	58	Relative to the original budget spent, we are 58% complete. Given where we are in the execution of contracts, agreements, and conduit placed in the ground (i.e. the work of the project itself), we believe our project is performing ahead of the schedule presented in the baseline relative to deployment of the mileage forecasted and approximately 75% of the total body of work original funded to complete.
2b.	Environmental Assessment	100	N/A
2c.	Network Design	100	N/A
2d.	Rights of Way	100	N/A
2e.	Construction Permits and Other Approvals	100	N/A
2f.	Site Preparation	0	N/A
2g.	Equipment Procurement	100	All major components to operate the backbone as designed have been ordered by end of this quarter. While there may be a small item or two like a fiber jumper, power breaker, etc., all major elements are now in possession.
2h.	Network Build (all components - owned, leased, IRU, etc)	51	Relative to the construction portion of the original project budget, we are at 51% complete for the project. Relative to the projected spend rate for construction due to savings we are at 61% complete. These numbers are also lower relative to actual completion due to timings on invoices from contractors. Relative to the actual network to be constructed, we have formalized agreements for IRU and built a total of 693 miles of the 901 forecasted miles of our project. 197 are via IRU's from FRC and ERC, 197 from an existing IRU, 61 from the IRU with Morris Broadband, 33 from the IRU's with Balsam and Plateau, and 205 miles constructed. If you factor in the miles of conduit completed, the number would be 883 miles. Relative to the work related to the miles to be built or acquired in the approved project, we are at 77% complete.
2i.	Equipment Deployment	41	Due to delays in getting started on construction by approximately two quarters, this milestone has lagged by about one quarter in reporting until now. We base the deployment percentage complete on number of optical miles lit. With 368 miles now operational of the 901 reflecting the placement of equipment between Raleigh and Wilmington, Rocky Mount and Greenville and Mocksville to Hickory, we consider ourselves 41% complete, slightly ahead of the 40% projection. The delay in construction did not allow for the deployment of Hickory to Asheville as we had anticipated by now. This segment is expected to become operational during the October - December 2011 quarter. Other spans

	Milestone	Percent Complete	Narrative (describe reasons for any variance from baseline plan or subsequent written updates provided to your program officer)
			will likely deploy in late fall, and in no case do we expect deployment of equipment to carry on beyond Y3Q1 (March 2012).
2j.	Network Testing	77	We are testing the fibers that we build as they are constructed, or as they are obtained and ready to put in to service. At the end of the quarter, we had tested 693 of the 901 miles to be deployed, ahead of the 33% projection.
2k.	Other (please specify):	0	NA

**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).**

Challenging terrain is the primary concern of the past quarter and what remains to be built. Our contractor in the west has encountered extremely rocky terrain and is having to bring in special directional boring equipment (rock hammers) to get through it. It slows the construction down relative to the pace we were achieving.

**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	205	In total, we have placed 205 miles of fiber and 395 miles of conduit. While we are slightly behind the number forecasted in the baseline (215.5 miles) due to the delay in the start of construction, we will no doubt be caught up by end of the Y2Q4 reporting period.
New network miles leased	291	Our projections on network miles leased have been inaccurate due to misinterpretation of network miles leased versus network miles upgraded in our baseline projections. As it relates to leasing (or in our case acquisition under IRU), we have now fully executed all that were planned or approved by NTIA once our project started. The total of 291 is from 197 from ERC and FRC routes communicated in application, 61 from Morris Broadband acquisition, and 33 from the Balsam and Plateau IRU's approved during the project. This number will always be less than the final projection of 420. The higher number reported in baseline are miles that now reside in the upgraded section below.
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 quarterly reporting.
Existing network miles leased	0	NA
Number of miles of new fiber (aerial or underground)	205	In total, we have placed 205 miles of fiber and 395 miles of conduit. While we are slightly behind the number forecasted in the baseline (215.5 miles) due to the delay in the start of construction, we will no doubt be caught up by end of the Y2Q4 reporting period. We are pushing contractors for completion by end of calendar 2011, and certainly no later than Y3Q1.
Number of new wireless links	0	NA
Number of new towers	0	NA

Indicator	Total	Narrative (describe your reasons for any variance from the baseline plan or any other relevant information)
Number of new and/or upgraded interconnection points	1,048	We had projected 160 in our baseline and are well above that. This number is representative of all splice enclosures and hand holds on our new builds as well as acquired fibers that have agreements allowing for interconnect at existing access points like hand holds and splice points.

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.

FRC, our subrecipient, has been discussing agreements with Zayo Bandwidth and Dukenet Communications for fibers in the route but contracts are not signed. They are now also talking to Pangea Internet about a possible IRU acquisition.

MCNC is exploring additional agreements with ERC for more fibers they would IRU along the BTOP route than originally planned and with Haywood County Government for a dark fiber lease respectively.

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 noted above are part of the IRU swaps that were negotiated and submitted to the NTIA for approval and those sites are expected to supply those services.

FRC is currently negotiating for a long term IRU sale of Dark Fiber assets along specific portions of the planned ring build. The potential customer is a company known as Zayo, LLC, a Colorado company. Pricing for the fiber has been offered at a one time IRU fee of \$1.8M, and annual maintenance fees of \$70.19K, or \$5,848 per month. The deal has not yet closed.

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).

FRC has been contracted to provide fiber maintenance (locates and break/fix) on the fiber once construction is complete. 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 would 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	We inadvertently reported 4 in the last quarter. While agreements between FRC and Dukenet, and FRC and Zayo are being negotiated, they are not formally signed as we discovered in retrieving data this quarter.
	Providers with signed agreements receiving improved access	0	We have found that most providers we've talked to are interested in dark services and not lit wholesale capacity, therefore our projection here was wrong. We currently do not forecast any providers receiving improved access beyond ourselves and FRC.
	Providers with signed agreements receiving access to dark fiber	2	We inadvertently reported 4 in the last quarter. While agreements between FRC and Dukenet, and FRC and Zayo are being negotiated, they are not formally signed as we discovered in preparing data this quarter.

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	NA
Community Anchor Institutions (including Government institutions)	Total subscribers served	1,136	We believe our projections in our application may be wrong due to misinterpretation of the guidance. What we report here are CAI's that were already directly connected to the North Carolina Research and Education Network (NCREN) backbone 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. Our projections were based on those types of institutions located in those counties our fiber route passes through, but may not actually be a part of NCREN today.
	Subscribers receiving new access	0	NA
	Subscribers receiving improved access	1,136	We believe our projections in our application may be wrong due to misinterpretation of the guidance. What we report here are CAI's that were already directly connected to the NCREN backbone 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. Our projections were based on those types of institutions located in those counties our fiber route passes through, but may not actually be a part of NCREN today.
	Please identify the speed tiers that are available and the number or subscribers for each	1,136	10Gbps shared backbone is available to all of these subscribers with more bandwidth available to be provisioned as required.
Residential / Households	Entities passed	0	NA
	Total subscribers served	0	NA
	Subscribers receiving new access	0	NA
	Subscribers receiving improved access	0	NA
	Please identify the speed tiers that are available and the number of subscribers for each	0	NA
Businesses	Entities passed	0	NA
	Total subscribers served	0	NA
	Subscribers receiving new access	0	NA
	Subscribers receiving improved access	0	NA
	Please identify the speed tiers that are available and the number of subscribers for each	0	NA

**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 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).**  
  
 NA

**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
NA	NA	NA	NA	NA

**Project Indicators (Next Quarter)**

1. Please describe significant project accomplishments planned for completion during the next quarter (600 words or less).  
 We believe all conduit construction will be complete and our goal is for the remaining fiber to be complete as well. We anticipate having placed in to service all fiber in the eastern portion of the network, as well as much of the fiber on the western portion. By the end of the quarter we project cumulative totals of 413 new network miles deployed, 291 miles leased, 1136 total CAI's receiving improved access (zero directly connected as the original project didn't forecast this), and two providers with signed agreements.

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	81	We expect to have 95% of the scope of work completed. We expect expenditures by the end of the quarter will be around 81% of the total awarded contract value due to savings realized in executing on the work and timing related to contractor invoices for work completed during the last part of the quarter.
2b.	Environmental Assessment	100	N/A
2c.	Network Design	100	N/A
2d.	Rights of Way	100	N/A
2e.	Construction Permits and Other Approvals	100	N/A
2f.	Site Preparation	0	N/A
2g.	Equipment Procurement	100	N/A
2h.	Network Build (all components - owned, leased, IRU, etc.)	100	N/A
2i.	Equipment Deployment	80	We do not anticipate being behind our baseline projection for this quarter. Relative to the number of miles in the project and the amount of equipment deployed to operate that fiber, we feel we will be coming in close to the 60% indication as we are lighting fiber within a close timeframe to completion of the fiber builds. The only thing that may hamper this for completeness in this quarter is lost time due to holiday's and work that we typically do on existing infrastructure during this annual time frame.
2j.	Network Testing	100	N/A
2k.	Other (please specify):	0	NA

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).

The remaining areas of construction are the most difficult in the entire project. Adverse weather could continue to be something beyond our control that could impact us.

**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	\$379,500	\$83,808	\$295,692	\$416,395	\$91,956	\$324,439	\$420,000	\$92,752	\$327,248
b. Land, structures, right-of-ways, appraisals, etc.	\$350,000	\$77,294	\$272,706	\$361,727	\$79,883	\$281,844	\$395,000	\$87,231	\$307,769
c. Relocation expenses and payments	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
d. Architectural and engineering fees	\$1,397,142	\$308,543	\$1,088,599	\$1,667,908	\$368,339	\$1,299,569	\$1,750,000	\$386,468	\$1,363,532
e. Other architectural and engineering fees	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
f. Project inspection fees	\$3,470	\$766	\$2,704	\$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	\$31,439,915	\$6,943,153	\$24,496,762	\$16,189,408	\$3,575,250	\$12,614,158	\$21,000,000	\$4,637,615	\$16,362,385
j. Equipment	\$6,415,529	\$4,346,474	\$2,069,055	\$4,590,513	\$2,795,372	\$1,795,141	\$4,700,000	\$2,819,551	\$1,880,449
k. Miscellaneous	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>l. SUBTOTAL (add a through k)</b>	\$39,985,556	\$11,760,038	\$28,225,518	\$23,225,951	\$6,910,800	\$16,315,151	\$28,265,000	\$8,023,617	\$20,241,383
m. Contingencies	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>n. TOTALS (sum of l and m)</b>	\$39,985,556	\$11,760,038	\$28,225,518	\$23,225,951	\$6,910,800	\$16,315,151	\$28,265,000	\$8,023,617	\$20,241,383

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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