

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 NT10BIX5570070	3. DUNS Number 147368641
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4. Recipient Organization

Massachusetts Technology Park 75 North Drive
 , Westborough, MA 01581-3335

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
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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 Lisa Erlandson	7c. Telephone (area code, number and extension)
	7d. Email Address erlandson@masstech.org

7b. Signature of Certifying Official Submitted Electronically	7e. Date Report Submitted (MM/DD/YYYY): 11-19-2012
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Project Indicators (This Quarter)

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

MassBroadband 123 accomplishments for the quarter ending September 30th, 2012:

Agreements and Administration

- Completed all required Point of Interconnection license and co-location agreements, executing 4 agreements during the quarter for a total of 25.
- Submitted Award Action Requests for modifications of construction plans pending NTIA approval of the designated route adjustments

Make Ready and Licensing

- Submitted applications for licensing and make ready for 600 poles, totaling 37,000 for the project
- Submitted applications for 1 mile of conduit for a total of 41 miles for the project
- Received cost estimates on 1,100 poles for Verizon and 1,775 poles for electric companies, for totals to date of 31,700 from Verizon and 28,300 from electric companies
- Received 11,965 pole licenses for Verizon for a total of 21,831 licenses and 9,157 for the electric companies for a total of 18,203 licenses
- Received licenses on 22 conduit applications totaling 8 miles of conduit.
- Performed third-party make ready work on behalf of applicable organizations
- Released 213 fully-licensed fiber miles to construction for aerial installation for a total of 393 miles for the project

Engineering, Design and Pre-Construction Activities

- Completed site surveys of 5 Community Anchor Institution locations to total 900 to date; surveys now complete for the project
- Completed designs for 198 Community Anchor Institution locations for a total of 769 for the project
- Completed all required designs for Point of Interconnection and co-location sites, completing 9 in the reporting period for a total of 25 for the project
- Completed all pre-construction segment drawings for the project, completing 22 in the quarter for a total of 35

Construction

- Installed 89 miles of messenger strand, totaling 207 miles for the project
- Installed 52 miles of fiber optic cable, totaling 120 miles for the project
- Completed site installations for 158 Community Anchor Institution locations for a total of 453 site installations for the project
- Completed 2 Point of Interconnection and co-location site installations for a total of 3 to date

Jobs Created or Retained

- The total number of jobs created or retained for the quarter was 66.15

Sustainability

- Executed 4 letters of Intent with Internet Service Providers for a total of 26 to date
- Began CAI Broadband Adoption Project, an outreach vehicle for town managers and administrators aimed to increase service sales as the network is completed and activated

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	79	Throughout this report, we are calculating Percentage Complete with reference to the approved NTIA budget. Costs are now projected to be higher than that approved budget, and MTC has secured additional non-federal funds from the Commonwealth of Massachusetts to cover those amounts that exceed the approved NTIA budget. Tracking closely to budget projections; 6% behind baseline due to cumulative reasons set forth below. In comparison to the new project budget, 64% of the budget has been spent.
2b.	Environmental Assessment	100	Complete and at baseline projection. Compliance requirements with environmental mitigation included in Design-Build RFP and the Owner's Project Manager will oversee work

	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	Ahead on budgeted expenditures by 24%, due to front-loaded focus of Owner's Project Manager, Design Builder and other consultants as network design progressed
2d.	Rights of Way	100	On par with baseline budget as pole survey work and make ready application costs are winding down
2e.	Construction Permits and Other Approvals	100	Ahead on budgeted expenditures by 21% due to high make ready costs offset by additional matching funds from the Commonwealth of Massachusetts
2f.	Site Preparation	31	Behind on budgeted expenditures by 69% due to costs being allocated in other categories. Costs will be less than baseline projection
2g.	Equipment Procurement	98	On par with baseline budget
2h.	Network Build (all components - owned, leased, IRU, etc)	42	Behind on budgeted expenditures by 44%. Design Build ramp-up and slower-than-expected make ready construction work by utilities has led to less expenditures to date than planned. Some work was also delayed while MTC sought NTIA approval of route and installation type changes. Additionally, some costs included in the baseline report under this category are being captured under Network Design
2i.	Equipment Deployment	100	On par with baseline budget
2j.	Network Testing	0	Behind by 22% due to the aforementioned construction delays that have subsequently delayed the onset of testing.
2k.	Other (please specify):	100	Ahead on budgeted expenditures by 8% due to costs including: -Federal Compliance Staff -BTOP Non-Construction Staffing -Application and Post Application Submission Costs included in approved budget -Staff, Consulting and legal costs with agreements

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).

Throughout the quarter MTC worked with NTIA to obtain formal approval of all proposed route, CAI, POI and installation type changes. In review of route changes that had been implemented or planned by MTC, NTIA developed concerns that the nature of the changes may have led to noncompliance with BTOP's Environmental and Historic Preservation requirements. NTIA maintained that while MTC's internal compliance process appeared to be sound, because NTIA had not yet reviewed or approved the changes conducted during the review process, any changes that had not been approved by NTIA were out of compliance. At the request of NTIA, MTC ceased work on portions of the project and worked to fully document the scope of the changes via Award Action Request. This impacted utility make-ready completion, MTC deployment of aerial and underground fiber, placement of new poles, installation of new conduit, and work at Points of Interconnection and Community Anchor Institutions in various portions of the project. MTC prepared two Award Action Requests (AARs) to NTIA to obtain approval for all the project changes. During the quarter MTC obtained approval for one AAR and submitted the second. The construction hold most severely affected planned new underground installations, most of which are included in the second AAR mentioned above, and as a result new underground installations now form the critical path for project completion.

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	120	Behind on baseline projection by 505 miles due to slower-than-expected make ready completion and temporary construction hold instituted by NTIA. MTC is working with its construction contractor to compress construction schedule in future quarters to make up for these delays
New network miles leased	193	Behind on baseline projection by 114 miles. Lease miles reduced from 307 to 192.5 per approved AAR due to switch to all dark fiber IRUs

Indicator	Total	Narrative (describe your reasons for any variance from the baseline plan or any other relevant information)
Existing network miles upgraded	57	Ahead on mileage projection in baseline by 2 miles. The 57 miles along I91 were officially active as in-kind contribution on 6/29/12. The extra 2 miles are from an added section from I91 to the internet point of presence in Springfield
Existing network miles leased	0	N/A
Number of miles of new fiber (aerial or underground)	370	Behind on baseline projection by 617 miles as described in the preceding 4 lines
Number of new wireless links	0	N/A
Number of new towers	0	N/A
Number of new and/or upgraded interconnection points	2	Behind on baseline projection by 21; per NTIA direction, MTC placed a construction hold on and Point of Interconnection not included in its Environmental Assessment until it received approval of the required Award Action Request. Points of Interconnection site installations and connections will resume in the next two quarters.

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	4
Number of agreements currently being negotiated with broadband wholesalers or last mile providers	7
Average term of signed agreements (in quarters)	70

5b. Please list the names of the wholesale and last mile providers with whom you have signed agreements (100 words or less). Providers: Axia Networks, USA; Massachusetts Information Technology Division (ITD), Crocker Communications, FTG Technologies, Center for Education Leadership (CELT)

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:
None at this time

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).
MTC has hired Axia NGNetworks USA as a contractor to run the entirety of the MassBroadband 123 network. They will also assist with equipment specifications and network and fiber design during the construction period. Tim Scott, Vice President, may be contacted at Tim.Scott@axia.com

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	5	Ahead on baseline by 4; interest of service providers has exceeded expectations held at the time of grant submission

Subscriber Type	Access Type	Total	Narrative (describe your reasons for any variance from the baseline plan or any other relevant information)
	Providers with signed agreements receiving improved access	0	Behind on baseline by 6; while connecting agreements are not yet executed; many letters of intent have been signed (26) and will lead to connecting agreements.
	Providers with signed agreements receiving access to dark fiber	0	Per NTIA guidance, MTC now lists service providers who receive access to both lit and dark services on the primary method they will use to obtain services. MTC now anticipates that all service providers will primarily receive lit services, causing the value to remain at zero.
	Please identify the speed tiers that are available and the number of subscribers for each	0	5Mbps 10Mbps 20Mbps 100Mbps 1Gbps 5Gbps 10Gbps+
Community Anchor Institutions (including Government institutions)	Total subscribers served	0	In preparing the baseline, MTC considered CAI connections as occurring upon installation of systems, but is now reporting based on when Community Anchor Institutions are capable of receiving lit service, resulting in a delay in the metrics. 453 installations have been performed vs. the projected 574; ramp-up of subcontractor effort is expected next quarter to maintain pace
	Subscribers receiving new access	0	In preparing the baseline, MTC considered CAI connections as occurring upon installation of systems, but is now reporting based on when Community Anchor Institutions are capable of receiving lit service, resulting in a delay in the metrics.
	Subscribers receiving improved access	0	In preparing the baseline, MTC considered CAI connections as occurring upon installation of systems, but is now reporting based on when Community Anchor Institutions are capable of receiving lit service, resulting in a delay in the metrics.
	Please identify the speed tiers that are available and the number of subscribers for each	0	5Mbps 10Mbps 20Mbps 100Mbps 1Gbps 5Gbps 10Gbps+
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).

MTC offers a 15% discount off of wholesale rates to our state partners, Information Technology Division and Executive Office of Public Safety and Security. Our state partners contributed matching funds to the MassBroadband 123 grant application and they have committed to being an anchor tenant on the new network.

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

8b. If so, please describe the changes (300 words or less).

N/A

9. Community Anchor Institutions:

Using the table below, please provide a list by service area of the community anchor institutions (including Government institutions) connected to your network as a result of BTOP funds. Figures should be reported for the most recent reporting quarter only (NOT cumulatively). Also indicate whether your organization is currently providing broadband service to the anchor institution. Finally, provide a short narrative description with examples of how institutions are using BTOP-funded infrastructure (300 words or less).

Institution Name	Service Area (town or county)	Type of Anchor Institution (as defined in your baseline)	Are you also the broadband service provider for this institution? (Yes / No)	Narrative description of how anchor institutions are using BTOP-funded infrastructure
N/A	N/A	N/A	N/A	N/A

Project Indicators (Next Quarter)

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

In the upcoming quarter, MTC plans to:

Agreements
 -Execute Pole Attachment and Conduit Agreement with Massachusetts Department of Conservation and Recreation, Fairpoint, and Time Warner
 -Execute dark fiber Indefeasible Rights of Use (IRU) agreement with Westfield, Chicopee, and South Hadley
 -Continue filing of environmental and railroad permits
 -Obtain NTIA approval of all remaining route and installation type changes

Design and Engineering
 -Complete splicing diagrams for the remainder of the network
 -Complete inside plant design for final 5% of the Community Anchor Institutions to complete the design process

Construction
 -Continue to install network equipment at CAIs once NTIA construction hold is released. Goal is to reach 80% of installations complete
 -Continue to install network equipment at POIs once NTIA construction hold is released. Goal is to reach 40% of installations complete
 -Install messenger strand and fiber optic cable as utility pole licenses become available (an estimated 150 miles of fiber installed for the quarter). MTC is working with its construction contractor to compress construction in future quarters to make up for make-ready delays
 -Continue make ready work on poles to provide more work released for fiber optic construction. Expected to complete 95% of aerial make ready and 60% of conduit make ready
 -Continue performing third-party make ready work on behalf of applicable organizations

Acceptance Testing
 -Complete testing and turnovers of first 5 Points of Interconnection and co-location sites

Sustainability
 -Negotiate additional Letters of Intent with Internet Service Providers and work towards contracts to provide service. Expected to sign four additional Connecting Agreements
 -Conduct Community Outreach meetings in the service area

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	92	Throughout this report, we are calculating Percent Complete with reference to the original NTIA budget. Costs are now projected to be higher than that original budget, and MTC has secured additional non-federal funds from the Commonwealth of Massachusetts to cover those amounts that exceed the original NTIA budget. Tracking closely with baseline percentage as compared to original budget; ahead by 1%. Against new budget with extra funds, expected to be at 72% complete
2b. Environmental Assessment	100	Environmental Assessment completed. No further expenditures planned. Compliance requirements with environmental mitigation included in the Design Build Request For Proposal and the Owner's Project Manager will oversee work

	Milestone	Planned Percent Complete	Narrative (describe reasons for any variance from baseline plan or any other relevant information)
2c.	Network Design	100	Ahead on projected expenditures by 15%, due to front-loaded costs in areas of Owner, Owner's Project Manager, Design Builder and other consultants.
2d.	Rights of Way	100	On par with baseline projections; pole surveying and make ready applications projected to fully complete
2e.	Construction Permits and Other Approvals	100	Ahead on projected expenditures by 10% due to higher than anticipated for make ready work costs than in baseline projection
2f.	Site Preparation	41	Behind on projected expenditures by 59% due to costs now forecasted to be less than baseline projection, with portions captured in other categories. MTC does not anticipate reaching 100% expenditures for this line item
2g.	Equipment Procurement	100	On par with baseline projections
2h.	Network Build (all components - owned, leased, IRU, etc.)	54	Behind on projected expenditures by 37% due to (a) some projected costs accounted for under other categories, (b) slower than anticipated make-ready completion by utilities has delayed crew ramp-up, and (c) schedule recovery from the delay pending NTIA approval of Award Action Requests.
2i.	Equipment Deployment	100	On par with baseline projections
2j.	Network Testing	35	Behind on projected expenditures by 9% due to construction delays which have pushed back the anticipated progress of testing
2k.	Other (please specify):	100	Ahead on projected expenditures by 5%; however; no significant expenditures planned next quarter which aligns with PPR projections and baseline. Costs include: <ul style="list-style-type: none"> • Federal Compliance Staff • BTOP Non-Construction Staffing • Application and Post Application Submission Costs • Staff, Consulting and Legal Costs with procurements

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).

Construction scheduling has become a critical issue to timely completion of the projection. Throughout the past quarter, much of the available CAI, POI and fiber optic construction was placed on temporary hold until NTIA approvals were obtained. Next quarter will be spent recovering from those schedule delays by compressing the schedule and ramping up additional crews. However, we face a major challenge in the area of underground construction, where winter moratoriums often prevent any such construction from occurring between the months of November and March due to weather. It will be crucial to make gains in other areas of construction, installation and testing so as to minimize the negative schedule impacts due to weather concerns. MTC will work with its vendors to manage this challenge and to complete the work as efficiently and effectively as conditions allow.

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	\$1,871,196	\$598,342	\$1,272,854	\$2,198,879	\$742,738	\$1,456,141	\$2,383,885	\$831,540	\$1,552,345
b. Land, structures, right-of-ways, appraisals, etc.	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
c. Relocation expenses and payments	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
d. Architectural and engineering fees	\$9,317,022	\$2,979,253	\$6,337,769	\$11,297,966	\$3,980,055	\$7,317,911	\$13,137,090	\$4,862,834	\$8,274,256
e. Other architectural and engineering fees	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
f. Project inspection fees	\$2,218,560	\$709,417	\$1,509,143	\$0	\$0	\$0	\$145,000	\$69,600	\$75,400
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	\$51,193,858	\$19,660,308	\$31,533,549	\$35,402,062	\$16,406,634	\$18,995,428	\$40,794,872	\$18,995,154	\$21,799,718
j. Equipment	\$7,044,808	\$2,252,680	\$4,792,129	\$7,639,986	\$3,064,989	\$4,574,997	\$9,304,801	\$3,864,101	\$5,440,700
k. Miscellaneous	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
l. SUBTOTAL (add a through k)	\$71,645,444	\$26,200,000	\$45,445,444	\$56,538,893	\$24,194,416	\$32,344,477	\$65,765,648	\$28,623,229	\$37,142,419
m. Contingencies									
n. TOTALS (sum of l and m)	\$71,645,444	\$26,200,000	\$45,445,444	\$56,538,893	\$24,194,416	\$32,344,477	\$65,765,648	\$28,623,229	\$37,142,419

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: \$326,444
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