

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) 03-31-2012	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): 05-11-2012
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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 March 31st, 2012 include:

Agreements

- Reviewed draft Point of Interconnection Agreement with all required project locations
- Executed 5 of 22 Points of Interconnection license agreements
- Executed agreement for 3.5 miles of overlash construction in Richmond, Massachusetts
- Executed attachment agreement for Massachusetts Development Finance Agency

Make Ready and Licensing

- Submitted applications for licensing and make ready for over 6,200 poles, totaling over 35,600 for the project
- Submitted conduit applications for over 7 miles of conduit for a total of 35 miles for the project
- Paid Verizon make ready cost estimates for 12,000 poles for a total of 25,800 poles, and electric company make ready costs for 13,800 poles for a total of 20,500
- Received pole licenses for 2,082 poles from Verizon and 1,655 from electric utilities. Through 3/31 we have received 2,469 licenses for Verizon and 2,085 licenses from electric utilities
- Released 48 licensed fiber miles to construction

Engineering, Design, and Pre-Construction Activities

- Received district-wide permits from the Massachusetts Department of Transportation
- Completed site surveys of 205 Community Anchor Institutions totaling 837 to date, and surveyed all 22 Points of Interconnect locations
- Completed design submittals for 319 Community Anchor Institutions installations totaling 415 through 3/31 and 5 Points of Interconnect totaling 8 through 3/31
- Completed final strand count cable design for all project phases
- Completed construction drawings for 3 segments of the network, totaling 7 for the project through 3/31
- Obtained critical infrastructure components including inside plant parts, fiber optic cable, core optical network equipment, termination panels, and power plant
- Approved prototype test lab for proof-of-design and testing

Construction

- Installed 25 miles of messenger strand
- Installed 8 miles of fiber optic cable
- Complete 82 CAI site installations

Jobs Created or Retained

- The Total Number of Jobs Created or Retained for the quarter was 33.09

Sustainability

- Executed 11 Letters of Intent with Internet Service Providers for providing network services. Through 3/31, we have executed 20 Letters for Intent for Service
- Executed 2 connecting agreements with Internet Service Providers

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	48	Tracking closely to budget projections; 4% under baseline to to cumulative reasons set forth below
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
2c.	Network Design	100	Ahead on budgeted expenditures by 43%, due to front-loaded focus of Owner's Project Manager, Design Builder and other consultants as network design progressed. Costs are now projected to be higher than the original NTIA budget

	Milestone	Percent Complete	Narrative (describe reasons for any variance from baseline plan or subsequent written updates provided to your program officer)
2d.	Rights of Way	100	Ahead on budgeted expenditures by 9%. Pole survey work has completed and make ready applications are nearly complete.
2e.	Construction Permits and Other Approvals	68	Ahead on budgeted expenditures by 15% due to high make ready costs during quarter. Cost are projected to be higher than original NTIA budget.
2f.	Site Preparation	0	Behind on budgeted expenditures by 75% due to activities now being projected to occur in Year 2 Quarter 4. Costs will be less than baseline projection.
2g.	Equipment Procurement	42	Ahead on budgeted expenditures by 4%. Equipment and materials were procured and paid for earlier than schedule due to industry-wide lengthened lead times on delivery.
2h.	Network Build (all components - owned, leased, IRU, etc)	22	Behind on budgeted expenditures by 30%. Design Build ramp-up and slower-than-expected. Make ready construction work by utilities has led to less expenditures to date than planned. Additionally, some costs included in the baseline report under this category are being captured under Network Design.
2i.	Equipment Deployment	21	Behind on budgeted expenditures by 17% due to equipment deployment starting later than planned
2j.	Network Testing	0	On par with baseline
2k.	Other (please specify):	100	Ahead on budgeted expenditures by 17% 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).

The completion of make ready work leading to pole licensing has been slower than expected due to the gradual ramp-up of the utility work forces involved with the reconciliation and construction work. In addition, we initially experienced a denial of significant amounts of conduit license applications which was reversed by the utility companies based on additional analysis of conduit availability, but the time from that analysis resulted in delays in obtaining conduit licenses. Make ready work is currently slightly behind our projected completion schedule, but our team continues to meet with utility officials at the executive level, as well as coordinate with crew managers on a daily and weekly basis to manage the priorities of the work and the rate in which it is completed.

In terms of the budget overruns, MTC has secured additional non-federal funds from the Commonwealth to offset budget overruns.

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	48	Behind on baseline projection by 152 miles due to slow make ready completion; current schedule forecasting indicates that progress will be made up in upcoming quarters
New network miles leased	0	Behind on baseline projection by 231 miles out of a total of 307 miles projected in the baseline; the actual mileage is 192.5 and is expected to take delivery June 1st, 2012, versus the original plan to accept delivery in the current quarter. Leased network miles are reduced to 192.5 from 307 due to leasing all as dark fiber instead of prior plan to lease a combination of dark fiber and a wavelength service.

Indicator	Total	Narrative (describe your reasons for any variance from the baseline plan or any other relevant information)
Existing network miles upgraded	0	Variance of 55 miles from the baseline equates to those miles provided as match for this quarter but won't be considered "existing upgraded" until they are lit with BTOP funds in a future quarter.
Existing network miles leased	0	N/A
Number of miles of new fiber (aerial or underground)	48	Behind on baseline projection by 438 miles as described in the preceding 4 lines.
Number of new wireless links	0	NA
Number of new towers	0	NA
Number of new and/or upgraded interconnection points	0	Behind on baseline projection by 1; MTC ended the quarter with the room fit out and equipment for 1 point of interconnection in process versus the expectation that it would be completed. This and other points of interconnection will be completed next quarter

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

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:

No services are being offered 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 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	4	Ahead on baseline by 3; interest of service providers has exceeded expectations held at the time of grant submission
	Providers with signed agreements receiving improved access	0	Behind on baseline by 4; while connecting agreements are not yet executed; many letters of intent have been signed and will lead to connecting agreements.

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 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	N/A
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. 82 installations have been performed vs. the baseline of 145; ramp-up of subcontractor effort is expected next quarter
	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	100Mbps: 3, 1Gbps: 4, 5Gbps: 0, 10Gbps+: 6
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
None to date	None	None	None	None

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
- Execute dark fiber Indefeasible Rights of Use (IRU) agreement with Westfield, Chicopee, Holyoke, and South Hadley
- Execute overlash agreement with Russell Municipal Light Department
- Execute agreements with CSX Corporation, Pioneer Valley Railroad and Pan Am Railways
- Continue filing of environmental and railroad permits
- Execute agreements with all remaining Points of Interconnect

Design and Engineering

- Complete segment construction drawings for 12 additional segments, for a total of 55% of the network
- Complete site survey on all of the Community Anchor Institutions in the network (10% remain)
- Complete inside plant design for 25% of the Community Anchor Institutions for a total of 60% of the network
- Complete inside plant design for 5 Points of Interconnect for a total of 59% of the network

Construction

- Install network equipment at Community Anchor Institutions as designs are finalized and available. Expected to reach 35% of Institutions installed. MTC is performing equipment installations at Community Anchor Institutions in advance of actual connection, which requires connectivity to the nearest Point of Interconnection and from that Point of Interconnection to the internet Point of Presence. Due to adjusted make ready completion timelines, we now project the first connections as occurring in Year 2, Quarter 4
- Install messenger strand and fiber optic cable as utility pole licenses become available (an estimated 107 miles of fiber installed for the quarter)
- Continue make ready work on poles
- Operationalize the I91 fiber network, making it available for commercial use

Sustainability

- Negotiate additional Letters of Intent with Internet Service Providers and work towards contracts to provide service
- 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	72	Ahead on projected expenditures by 5% due to higher than anticipated expenditures for make ready work and network design costs, both of which are higher than initial baseline plan
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
2c.	Network Design	100	Ahead on projected expenditures by 33%, due to front-loaded costs in areas of Owner, Owner's Project Manager, Design Builder and other consultants. Costs are projected to be higher than original baseline
2d.	Rights of Way	100	Ahead on projected expenditures by 2% due to being ahead of schedule and complete with aerial and conduit applications and pole surveying work
2e.	Construction Permits and Other Approvals	100	Ahead on projected expenditures by 32% due to higher than anticipated for make ready work costs, which has been forecast higher than in initial baseline plan

	Milestone	Planned Percent Complete	Narrative (describe reasons for any variance from baseline plan or any other relevant information)
2f.	Site Preparation	14	Behind on projected expenditures by 86% due to anticipated costs now forecast to be less than baseline projection, with portions captured in Network Design
2g.	Equipment Procurement	99	Ahead on projected expenditures by 26%. Equipment and materials will be procured and paid for earlier than schedule due to industry-wide lengthened lead times on delivery. Costs are also now projected to be higher than baseline plan.
2h.	Network Build (all components - owned, leased, IRU, etc.)	31	Behind on projected expenditures by 34%, due to some projected costs accounted for under Network Design. Design Build costs will continue to rise over remainder of project as construction fully ramps up
2i.	Equipment Deployment	100	Ahead on projected expenditures by 25% due to higher equipment installation costs than in initial baseline plan.
2j.	Network Testing	0	On par with baseline and projected expenditures
2k.	Other (please specify):	100	Ahead on projected expenditures by 12%; 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 included in approved budget • 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).

N/A

