

U.S. DEPARTMENT OF COMMERCE

Performance Progress Report

2. Award Or Grant Number

25-50-M09017

4. Report Date (MM/DD/YYYY)

01-04-2012

1. Recipient Name

Massachusetts Tech. Park Corporation dba MTC

6. Designated Entity On Behalf Of:

N/A

3. Street Address

75 North Drive,

8. Final Report?

Yes

No

9. Report Frequency

Quarterly

Semi Annual

Annual

Final

5. City, State, Zip Code

Westborough, MA 01581

7. Project / Grant Period
Start Date: (MM/DD/YYYY)

11-01-2009

7a. End Date: (MM/DD/YYYY)

10-30-2014

7b. Reporting Period End Date:

12-31-2011

9a. If Other, please describe:

N/A

10. Broadband Mapping

10a. Provider Table

Number of Providers Identified	Number of Providers Contacted	Number of Agreements Reached for Data Sharing	Number of Partial Data Sets Received	Number of Complete Data Sets	Number of Data Sets Verified
0	0	0	0	0	0

10b. Are you submitting the required PROVIDER DATA by using the Excel spreadsheet provided by the SBDD grants office? Yes No

10c. Have you encountered challenges with any providers that indicate they may refuse to participate in this project? Yes No

10d. If so, describe the discussions to date with each of these providers and the current status

In the previous quarter, the Massachusetts Broadband Institute (MBI) added data for two providers that was created using information extracted from the providers' web sites. To date, we have not heard from them regarding confirmation of the data we submitted last round or their participation in the next data collection round. We have sent maps for their review in the hope that it will be much easier for them to refine the service areas and supporting information for the next data submission. As the next deadline approaches, we will increase efforts to contact these providers.

We recently reconnected with the provider that was unresponsive to our request to execute a Non-Disclosure Agreement (NDA) in the last data collection round. They have indicated that they will sign or provide feedback on the NDA by early February.

We have also continued to confirm that some of the providers on our list do not qualify as facilities-based broadband service providers, according to the definition in the Notice of Funding Availability (NOFA), primarily because they cannot provide service within 7-10 days. As before, we will continue to collect data from these providers if they wish to participate, but will distinguish these providers in our datasets from those that fit the NOFA definition, by classifying them as provider type "other". However, there are still providers on our list that have not responded to our attempts to contact them, therefore we do not know their classification.

10e. If you are collecting data through other means (e.g. data extraction, extrapolation, etc), please describe your progress to date and the relevant activities to be undertaken in the future

Modeling of estimated cable and Digital Subscriber Line (DSL) service areas was completed in the first quarter of 2010, based on Computer Aided Design (CAD) strand maps filed with the MA Department of Telecommunications and Cable (DTC) and known central office locations, and were used to validate and supplement provider data. The models will be updated as new cable strand maps are received or DSL central office and remote terminal locations are refined or added. Remote terminal locations and DSL status continue to be collected and mapped through targeted field surveys. These have been helpful in identifying and flagging possible overstatement of service areas for provider feedback.

The Massachusetts Broadband Institute (MBI) continues to collect broadband service information from residents, businesses and from community anchor institutions (CAI) such as police, hospitals, community health centers, schools, colleges and universities, libraries, and town halls through online surveys. The redesigned CAI web surveys and speed test are still in development and will be released in the first quarter (Q1) of 2012, to be followed by a redesigned public web survey in the second quarter (Q2). The new surveys are intended to improve the user interface and quality and usability of the information collected, which will be used to supplement and verify data from providers, in addition to the community modified wireline service area maps and wireless drive study results in

discussed in section 10h. Survey data collected to date will be standardized to improve the usability of the data for verification of data received from providers.

10f. Please describe the verification activities you plan to implement

In addition to completed and ongoing verification activities discussed in section 10h, speed information submitted by providers will be compared to speed results from address searches on the providers' web sites as well as speeds submitted to the Federal Communications Commission (FCC) on Form 477. Feedback on the National Broadband Map and the Massachusetts Broadband Map will also be incorporated into our verification process.

10g. Have you initiated verification activities? Yes No

10h. If yes, please describe the status of your activities

In collaboration with WesternMA Connect (WMC), the Franklin Regional Council of Governments (FRCOG) and the Montachusett Regional Planning Commission (MRPC), the MBI completed a pilot wireline (e.g., DSL, cable and fiber optic) service area verification project involving feedback from community representatives. A project guidance document was developed to be used by other Regional Planning Agencies (RPAs). The MBI and WMC are now working with the Berkshire Regional Planning Commission (BRPC), Central Massachusetts Regional Planning Commission (CMRPC) and Pioneer Valley Planning Commission (PVPC) to prepare verification maps for those areas. At the completion of this project, the MBI will have feedback on wireline service from representatives of all 123 western and central Massachusetts communities in the MBI target service area known as "MassBroadband 123" and select additional communities in underserved areas. The project may be extended to other regions, such as Cape Cod, in the future.

Mobile wireless drives studies were completed earlier in 2010 and 2011 in central and western Massachusetts and Martha's Vineyard using Android phones from four companies operating in Massachusetts. The phones used software from QoS Solutions to capture wireless capacity, signal-level and network quality information and to run the FCC Speed Test. Results will be overlaid with provider service areas to identify areas inconsistent with the data received from providers.

A new provider portal, currently in development and to be released in the Q1 of 2012, will enable participating broadband service providers secure web access to view maps of their data. Areas of the map that conflict with information from alternate sources will be flagged as priorities.

10i. If verification activities have not been initiated please provide a projected time line for beginning and completing such activities

Verification activities will continue throughout the project. The community wireline verification maps will be sent to local representatives in 86 communities in western and central MA during Q1 of 2012. Feedback and map updates will continue into Q2. The provider portal be completed in Q1, in time use it in the provider feedback loop for the next data submission round. The new CAI survey will also be completed in Q1 and development of the new public survey will begin.

Staffing

10j. How many jobs have been created or retained as a result of this project?

The total number of jobs created or retained during the quarter were 5.67. (MTC = 2.86; Sub-Recipient = .85 and Vendor=1.96). This number includes the following positions:

1. The 2.86 MTC jobs are comprised of various administrative and program positions, which are: Division Director, Deputy Division Director, GIS Project Manager, One (1) GIS Analysts, Federal Compliance Manager, Program Coordinator, Administrative Assistant, and Veterans' Portal Project Manager.
2. The .85 Sub-Recipient jobs are comprised of programmatic and administrative support.
3. The 1.96 Vendor jobs are comprised of professional services consultants providing programmatic, web development, and auditing services.

10k. Is the project currently fully staffed? Yes No

10l. If no, please explain how any lack of staffing may impact the project's time line and when the project will be fully staffed

The timeline for the project will not be affected. One GIS Analyst position is open but all of the other positions for MTC staff are currently filled but are not operating at a full time equivalent on this project due to the activity and timelines required for the project. MTC's vendors and sub-recipients will only be utilized based on the needs of the project and it will vary quarter to quarter.

10m. When fully staffed, how many full-time equivalent (FTE) jobs do you expect to create or retain as a result of this project?

MTC was budgeted to need a total of 8.22 FTE's to be fully staffed. (MTC=5.22; Sub-Recipient=2; and Vendor=1).

10n. Staffing Table

Job Title	FTE %	Date of Hire
MBI Director or Deputy Director	28	12/10/2009
GIS Project Manager	94	05/14/2009
GIS Analyst	64	04/11/2011
Project Coordinator	32	08/09/2010
GIS Analyst	7	03/28/2011
Federal Compliance Manager	14	09/20/2010
Veteran's Portal Project Manager	47	03/28/2011
Vendor Professional Services Consultant	100	10/01/2010
Vendor Professional Services Consultant	96	10/01/2010
Sub-recipient Staff	85	10/01/2010

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Sub Contracts

10o. Subcontracts Table

Name of Subcontractor	Purpose of Subcontract	RFP Issued (Y/N)	Contract Executed (Y/N)	Start Date	End Date	Federal Funds	In-Kind Funds
Western MA Connect (Subcontract #1)	Planning Activities (Sub-Recipient)	N	Y	11/01/2009	10/31/2012	178,443	70,771
Western MA Connect (Subcontract #2)	Mapping Data Verification Activities	N	Y	07/29/2010	12/31/2012	65,293	0
BNC Consulting (George Brodeur) (Subcontract #3)	Field Engineering Services for Data Verification	Y	Y	01/08/2010	12/31/2014	61,249	0
Deloitte and Touche (Subcontract #4)	Annual Single Audit Services	Y	Y	11/01/2009	06/30/2012	30,750	0
Applied Geographics (subcontractor #5)	Web Design and Development Services	Y	Y	06/14/2010	12/31/2012	93,434	0
BYO Consulting (Subcontractor #5)	Project Development (Veteran's Portal)	Y	Y	01/19/2011	04/30/2012	27,085	0
Gopi Bala, LLC (Subcontractor #5)	Web Development for Veteran's Portal	Y	Y	09/23/2011	12/31/2012	163,247	0
Communications Media Advisors (Subcontractor #5)	Planning Activities related to Last Mile	N	Y	08/01/2011	11/30/2012	104,485	54,000

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Funding

10p. How much Federal funding has been expended as of the end of the last quarter? \$1,832,560 10q. How much Remains? \$4,329,994

10r. How much matching funds have been expended as of the end of last quarter? \$554,444 10s. How much Remains? \$1,122,878

10t. Budget Worksheet

Mapping Budget Element	Federal Funds Granted	Proposed In-Kind	Total Budget	Federal Funds Expended	Matching Funds Expended	Total Funds Expended
Personal Salaries	\$1,144,848	\$57,408	\$1,202,256	\$415,881	\$10,870	\$426,751

Mapping Budget Element	Federal Funds Granted	Proposed In-Kind	Total Budget	Federal Funds Expended	Matching Funds Expended	Total Funds Expended
Personnel Fringe Benefits	\$403,312	\$20,234	\$423,546	\$139,409	\$3,706	\$143,115
Travel	\$26,400	\$0	\$26,400	\$0	\$0	\$0
Equipment	\$58,470	\$8,930	\$67,400	\$23,304	\$8,930	\$32,234
Materials / Supplies	\$24,500	\$0	\$24,500	\$14,399	\$0	\$14,399
Subcontracts Total	\$2,435,000	\$771,869	\$3,206,869	\$734,130	\$166,086	\$900,216
Subcontract #1	\$350,000	\$70,000	\$420,000	\$178,443	\$70,771	\$249,214
Subcontract #2	\$100,000	\$0	\$100,000	\$65,293	\$0	\$65,293
Subcontract #3	\$66,375	\$0	\$66,375	\$61,249	\$0	\$61,249
Subcontract #4	\$42,500	\$0	\$42,500	\$30,750	\$0	\$30,750
Subcontract #5	\$1,876,125	\$701,869	\$2,577,994	\$398,395	\$95,315	\$493,710
Construction	\$0	\$0	\$0	\$0	\$0	\$0
Other	\$857,884	\$757,687	\$1,615,571	\$83,307	\$353,548	\$436,855
Total Direct Costs	\$4,950,414	\$1,616,128	\$6,566,542	\$1,410,429	\$543,140	\$1,953,569
Total Indirect Costs	\$1,212,140	\$61,194	\$1,273,334	\$422,131	\$11,304	\$433,435
Total Costs	\$6,162,554	\$1,677,322	\$7,839,876	\$1,832,560	\$554,444	\$2,387,004
% Of Total	79	21	100	77	23	100

Hardware / Software

10u. Has the project team purchased the software / hardware described in the application? Yes No

10v. If yes, please list

The total expenditures for software and hardware (excluding software maintenance costs) using federal and state match funds is as follows. No hardware or software was purchased this quarter.

The following were purchased in previous quarters:

- 1 data server for \$12,211.74
- 2 mobile workstations for \$3,469.19
- 2 desktop workstations for \$3,067.80
- 1 plotter for \$5,274.00
- 4 ArcGIS licenses for \$24,745.00
- 3 ArcGIS extension licenses for \$6,750.00

The ArcGIS software and workstations listed were purchased to support the data development, data analysis and mapping needs of the GIS Project Manager, 2 GIS Analysts and a GIS Intern. The data server was purchased to store data from service providers in a separate, secure location with restricted access and the plotter was purchased to create hard copy maps for outreach and data verification.

10w. Please note any software / hardware that has yet to be purchased and explain why it has not been purchased

Additional hard disk space and a desktop computer may be required to handle data storage and processing requirements. These will not be purchased until deemed necessary.

10x. Has the project team purchased or used any data sets? Yes No

10y. If yes, please list

N/A

10z. Are there any additional project milestones or information that has not been included? Yes No

10aa. If yes, please list

Following the fall data submission to NTIA, the state wireline and wireless availability PDF maps and the interactive Massachusetts Broadband Map were updated on the MBI web site.

Data feedback reports and maps were prepared to be sent to participating broadband service providers at the beginning of January, as an attachment to the next data collection request.

10bb. Please describe any challenge or obstacle that you have encountered and detail the mitigation strategies the project team is employing

As mentioned in section 10d, we believe that there are other companies on our list that don't fit the official definition of a broadband service provider from the NOFA, and we are continuing to reach out to and look for new contacts at these companies for clarification. We will also compare our list of unresponsive companies to list from other states, to determine if those companies have been responsive there.

10cc. Please provide any other information that you think would be useful to NTIA as it assesses your Broadband Mapping Project

The MBI corrected unexpected data values in the broadband service availability data submitted on September 30th and re-submitted on October 7th, within 1 day of the NTIA's request.

The MBI is still working on developing a procurement for address file development, which will include tasks for developing an address standardization toolkit and a web or mobile application for assigning addresses to geographic locations, and is considering revisions to the original plan. Although the address file development work did not begin on schedule, the original schedule allowed for a phased development approach, which the MBI intends to replace with a much more aggressive development schedule.

11. Broadband Planning

11a. Please describe progress made against all goals, objectives, and milestones detailed in the approved Project Plan. Be sure to include a description of each major activity / milestone that you plan to complete and your current status

The MBI and WesternMA Connect (WMC) completed an extensive 7 stop community outreach tour in October and November to meet with communities and discuss broadband issues. The events were geographically distributed throughout the MassBroadband 123 service area (including Western and parts of Central Massachusetts) in the following locations: Northampton, Sturbridge, North Adams, Worthington, Great Barrington, Fitchburg and Greenfield. An 8th event, planned for Westfield, was cancelled due to snow.

WMC is also working with the Regional Planning Agencies (RPA) in Western and North Central Massachusetts (MA) to provide technical support to communities on bylaws and other broadband issues. Four communities were selected as models for developing wireless broadband zoning bylaws. These are Cheshire (Berkshire region), Heath (Franklin region), Athol (Montachusett region) and Hadley (Pioneer Valley region). The RPAs for these regions will work with the communities to prepare wireless broadband facilities bylaws that will facilitate the siting of fixed wireless broadband infrastructure, to be completed in the Summer of 2012. The resulting bylaws and lessons learned will be made available to the other communities in these regions. The Franklin Regional Council of Governments (FRCOG) also began work on a sample Request for Proposal (RFP) to be used by Community Anchor Institutions (CAI) to competitively procure ISP services.

MBI has also employed contractors to (1) meet with infrastructure builders and service providers (13 to date) to review opportunities and discuss potential constraints in deploying infrastructure services; (2) perform a comprehensive last mile analysis to identify and characterize the underserved areas in Western and Central MA; and (3) perform cost benefit analyses for deploying various last mile solutions in the underserved communities. The results will be incorporated into the community toolkits prepared by WMC and the RPAs.

11b. Please describe any challenge or obstacle that you have encountered and detail the mitigation strategies the project team is employing

The MBI brought WMC together with key partners from the MassBroadband 123 middle mile infrastructure deployment project, network operator partner (Axia) and network design-build contractor (G4S), to facilitate information sharing and open doors for WMC to provide planning support to these partners. WMC's Route Conditions, Wireline and Wireless databases were shared with G4S and will be updated for G4S if needed.

11c. Does the Project Team anticipate any changes to the project plan for Broadband Planning? Yes No

11d. If yes, please describe these anticipated changes. Please note that NTIA will need to approve changes to the Project Plan before they can be implemented

The overall scope has not changed, but the sub-tasks have been adjusted to allow for the prioritization of last mile planning and approved by the NTIA. The last mile tasks assigned to contractors include the development of clusters, demographic research and analysis, and cost benefit analysis of deploying various technologies in each cluster. The analysis will: (1) identify cost and demand drivers, define resource characteristics of each community; aggregate communities into logical groupings; (2) identify technology options, per unit costs of each technology and identify most appropriate technologies for each group; (3) estimate deployment costs for each community for each technology option; and (4) define best strategies for MBI to aid in last mile deployment in each community.

Funding

11e. How much Federal funding has been expended as of the end of the last quarter? \$0

11f. How much Remains? \$0

11g. How much matching funds have been expended as of the end of last quarter? \$0

11h. How much Remains? \$0

11i. Planning Worksheet

Personal Salaries	\$0	\$0	\$0	\$0	\$0	\$0
Personnel Fringe Benefits	\$0	\$0	\$0	\$0	\$0	\$0
Travel	\$0	\$0	\$0	\$0	\$0	\$0
Equipment	\$0	\$0	\$0	\$0	\$0	\$0
Materials / Supplies	\$0	\$0	\$0	\$0	\$0	\$0
Subcontracts Total	\$0	\$0	\$0	\$0	\$0	\$0
Subcontract #1	\$0	\$0	\$0	\$0	\$0	\$0
Subcontract #2	\$0	\$0	\$0	\$0	\$0	\$0
Subcontract #3	\$0	\$0	\$0	\$0	\$0	\$0
Subcontract #4	\$0	\$0	\$0	\$0	\$0	\$0
Subcontract #5	\$0	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$0	\$0	\$0	\$0	\$0
Other	\$0	\$0	\$0	\$0	\$0	\$0
Total Direct Costs	\$0	\$0	\$0	\$0	\$0	\$0
Total Indirect Costs	\$0	\$0	\$0	\$0	\$0	\$0
Total Costs	\$0	\$0	\$0	\$0	\$0	\$0
% Of Total	0	0	0	0	0	0

Additional Planning Information

11j. Are there any additional project milestones or information that has not been included?

N/A

11k. Please describe any challenge or obstacle that you have encountered and detail the mitigation strategies the Project Team is employing

N/A

11I. Please provide any other information that you think would be useful to NTIA as it assesses your Broadband Mapping Project

Activities for the Veterans' Portal project have focused on initial development work performed by the vendor that was selected through the RFP process. The vendor created and tested a model for the wording and structure to describe Federal and State veterans' benefits, and conducted testing with Massachusetts Veterans Services Officers, veterans, and veterans' family members to validate and refine the model. The model will be employed by the search tool that will guide veterans to the benefits that are appropriate to their specific circumstances.

Other activities included initial drafts of the underlying structure and organization of the web portal (wireframes), which have been reviewed by the core project team and other stakeholders. The vendor created initial drafts of the visual design of the portal based on the wireframes. Additionally, work was begun on a marketing and branding plan, establishing groups of veterans who will perform usability testing, and outreach and training plans. A beta launch of the portal is expected in the first quarter of 2012. See the attached Veterans' Portal Status document for details on completed and in progress milestones.

Activities for the Community Development Corporation (CDC) project focused on completing and issuing the Request for Application (RFA) solicitation to identify four CDCs to participate in the project. The Massachusetts Association of Community Development Corporations assisted in drafting the RFA and in conducting outreach and publicizing the solicitation to CDCs. The RFAs will be evaluated and four CDCs will be selected in the first quarter of 2012.

12. Certification: I certify to the best of my knowledge and belief that this report is correct and complete for performance of activities for the purpose set forth in the award documents.

12a. Typed or Printed Name and Title of Authorized Certifying Official

Lisa Erlandson

12c. Telephone
(area code, number, and extension)

12d. Email Address

erlandson@masstech.org

12b. Signature of Authorized Certifying Official

Submitted Electronically

12e. Date Report Submitted
(Month, Day, Year)

02-21-2012