

**U.S. DEPARTMENT OF COMMERCE**

**Performance Progress Report**

2. Award Or Grant Number

25-50-M09017

4. Report Date (MM/DD/YYYY)

10-13-2011

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:

09-30-2011

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

Our primary focus continues to be getting additional providers on board and improving the completeness and quality of the data from participating providers. Of the 3 new providers that were added to the data submission this quarter, only one of those providers contributed information. The information for the other two providers was extracted from their web sites. The MBI will continue to reach out to these providers to include them in the process. We believe that the biggest hurdle for providers is creating the initial dataset. By doing this for them, we hope that it will be much easier for them to refine the service areas and supporting information.

Another provider that we were expecting to participate this quarter was stalled by the Non-Disclosure Agreement process. We hope to address this in the next quarter to allow them plenty of time to participate in the next data submission round.

We also believe that a number of providers on our list may not qualify as broadband service providers, as defined in the Notice of Funding Availability (NOFA), primarily because they cannot provide service within 7-10 days. We are working to confirm these so we can classify them correctly on the list. We will continue to collect data from these providers if they wish to participate, but plan to distinguish these providers on our maps from those that fit the NOFA definition.

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 (e.g., police, hospitals, community health centers, schools, colleges and universities, libraries, and town halls) through online surveys. The redesigned web surveys and speed test will be released in the 4th quarter of 2011 to improve the user interface and quality and usability of the information. This information, in addition to the community modified wireline service area maps and wireless drive study results discussed in section 10h, will be used to supplement and verify data 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, 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 (RPA). The MBI has contracted with WesternMA Connect to lead this effort with the Berkshire Regional Planning Commission (BRPC), Central Massachusetts Regional Planning Commission (CMRPC) and Pioneer Valley Planning Commission (PVPC). At the completion of this project, the MBI will have feedback on wireline service from representatives of all 123 western and north central Massachusetts communities in the MBI target service area known as "MassBroadband 123".

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 provider maps.

A new provider portal, to be developed, will enable us to flag areas with conflicting information from alternate sources for wireline and wireless providers to review and verify.

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 new community wireline verification project discussed in section 10h will kick-off in the 4th quarter of 2011 and continue into the first and second quarters of 2012. The provider portal will also begin development in the 4th quarter of 2011 and be completed in the 1st quarter of 2011, in time use it in the provider feedback loop for the next data submission round.

## Staffing

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

The total number of jobs created or retained were 5.19. (MTC = 3.57; Sub-Recipient = 1.09 and Vendor=.53). This number includes the following positions:

1. The 3.57 MTC jobs are comprised of various administrative and program positions, which are: Division Director, Deputy Division Director, GIS Project Manager, Two (2) GIS Analysts, Federal Compliance Manager, Program Coordinator, Administrative Assistant, and Veterans' Portal Project Manager.
2. The 1.09 Sub-Recipient jobs are comprised of programmatic and administrative support.
3. The .53 Vendor jobs are comprised of professional services consultants providing programmatic, 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. All of the positions for MTC staff are currently filled but are not operating at full capacity 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.

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 will 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	37	12/10/2009
GIS Project Manager	95	05/14/2009
GIS Analyst	74	10/12/2010

GIS Analyst	54	04/11/2011
Project Coordinator	39	08/09/2010
Executive Assistant	1	04/11/2011
Veteran's Portal Project Manager	39	03/28/2011
Federal Compliance Manager	18	09/20/2010
Vendor Professional Services Consultants (e.g. Program and Audit)	53	10/1/2010
Sub-Recipient Staff (Program and Administrative)	100	10/1/2010
Sub-Recipient Staff (Program and Administrative)	9	10/1/2010

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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	N	Y	11/01/2009	10/31/2012	151,202	74,606
Western MA Connect (Subcontract #2)	Mapping Data Verification Activities (Sub-Recipient)	N	Y	07/29/2010	12/31/2012	40,702	0
BNC Consulting (George Brodner) (Subcontract #3)	Field Engineering Services for Data Verification	Y	Y	01/08/2010	12/31/2014	58,686	0
Deloitte & Touche (Subcontract #4)	Annual Single Audit Services	Y	Y	11/01/2009	06/30/2012	30,750	0
Applied Geographics (Subcontract #5)	Web Design and Development Services	Y	Y	06/14/2010	12/31/2011	73,305	0
BYO Consulting (Subcontract #5)	Project Development (Veteran's Portal)	Y	Y	01/19/2011	12/31/2011	26,037	0

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**Funding**

10p. How much Federal funding has been expended as of the end of the last quarter? \$1,360,738      10q. How much Remains? \$4,801,815

10r. How much matching funds have been expended as of the end of last quarter? \$491,875      10s. How much Remains? \$1,185,446

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	\$365,485	\$10,870	\$376,355
Personnel Fringe Benefits	\$403,312	\$20,234	\$423,546	\$119,907	\$3,706	\$123,613
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	\$14,039	\$0	\$14,039
Subcontracts Total	\$2,435,000	\$771,869	\$3,206,869	\$396,310	\$115,921	\$512,231
Subcontract #1	\$500,000	\$100,000	\$600,000	\$151,202	\$74,606	\$225,808
Subcontract #2	\$100,000	\$0	\$100,000	\$40,702	\$0	\$40,702

Mapping Budget Element	Federal Funds Granted	Proposed In-Kind	Total Budget	Federal Funds Expended	Matching Funds Expended	Total Funds Expended
Subcontract #3	\$66,375	\$0	\$66,375	\$58,686	\$0	\$58,686
Subcontract #4	\$42,500	\$0	\$42,500	\$30,750	\$0	\$30,750
Subcontract #5	\$1,726,125	\$671,869	\$2,397,994	\$114,971	\$41,315	\$156,286
Construction	\$0	\$0	\$0	\$0	\$0	\$0
Other	\$857,884	\$757,687	\$1,615,571	\$72,698	\$341,145	\$413,843
Total Direct Costs	\$4,950,414	\$1,616,128	\$6,566,542	\$991,744	\$480,572	\$1,472,316
Total Indirect Costs	\$1,212,140	\$61,194	\$1,273,334	\$368,995	\$11,304	\$380,299
Total Costs	\$6,162,554	\$1,677,322	\$7,839,876	\$1,360,739	\$491,876	\$1,852,615
% Of Total	79	21	100	73	27	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

Not applicable.

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

10aa. If yes, please list

Broadband data was submitted to the National Telecommunications and Information Administration (NTIA) on September 30th, including wired broadband availability and speed by census block and street segment, wireless broadband availability and speed by service area, middle mile network interconnection points and community anchor institution broadband services. The datasets contain information from 33 broadband service providers, including 3 new providers since the last submission, and were updated to use the 2010 Census block and road segment data.

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

A large number of providers were added to the Massachusetts provider list from the FCC's Form 477 list, in order to allow for easier comparison between the lists. Each of these providers was researched by web and/or phone and assigned an appropriate provider type classification. Most of the companies either do not offer broadband services in Massachusetts, cannot provide service within 10 days, are resellers, do not offer broadband access as a service, or were duplicates of companies already on the list.

The MBI also changed the provider type classification for some of the companies on the list from "broadband provider" to "other", because they don't fit the official definition from the NOFA. These are primarily companies offering fiber optic service to medium to large businesses that cannot provide new service within 10 days. We believe that there are other companies in our list that may fall in the same category and are working to verify those classifications. In addition to this, we request to have the availability information for these providers displayed on the National Broadband Map differently than or separately from those serving residential or small business customers. These services make underserved areas of the state appear to be more served than they are by skewing the technology and speed offerings available to the majority of customers in those areas.

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

The MBI planned to release a Request for Information (RFI) in this quarter to determine the best approach for gathering address point data from the public using web and/or mobile phone applications. After further consideration, the MBI has decided not to release an RFI and will roll the requirements from the RFI into a Request for Proposal (RFP) for a crowd sourcing application developer. Address file development is an important part of improving the granularity of the broadband availability maps, but is traditionally a slow and costly process. The MBI has continued to research trade-offs between the efficiency and accuracy of various address file development methods and existing datasets prior to committing to one methodology.

## 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

MBI planning grant partner, WesternMA Connect (the "Connect") in collaboration with the Regional Planning Agencies (RPA), are continuing development of educational materials to include in a bylaw toolkit, which will include sample bylaws and Frequently Asked Questions (FAQ) for the communities in their regions. The Connect held a workshop in July to educate the RPAs on wireless broadband technologies and how they are impacted by zoning regulations, allow them to share experiences regarding zoning bylaws and fixed wireless facilities, and update them on the progress of the design and deployment of the MBI's fiber optic network project known as "MassBroadband 123". Each RPA will select a community in their district to use as a model to develop model zoning bylaws for wireless broadband technology deployment. The final products and lessons learned will be shared with the other RPAs and made available as reference for the other communities in their districts. The RPAs will continue to work with communities on an individual basis to address their broadband needs.

The Connect also assisted the MBI in setting up outreach meetings in western and central Massachusetts, including a joint broadband and e-health event for the Berkshire medical community held in September and a series of 8 community meetings to take place this fall to discuss the deployment of broadband in their communities.

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

None at this time.

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

Not applicable.

## 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						
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?

None at this time.

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

None at this time.

11l. 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 completing a RFP evaluation process and selecting a vendor to develop the web site and underlying database and search tools. Six qualified responses to the RFP were received and four vendors were invited to make formal presentations to the evaluation team. A contract with the highest ranked vendor is expected to be concluded in early October, with development work beginning immediately afterwards.

Other Veterans' Portal activities included the first meeting of the Advisory Group of key advocates within the veterans' community that was formed in June. This group will provide advice on development work and will assist in advocating for the portal to the community and in identifying veterans and family members who will be able to test the portal's functionality during the development phases prior to final deployment. Work was also started to develop a training program that will include curriculum development, on-site and on-line training, and outreach to veterans and their family members as well as Veterans Services Officers throughout the Commonwealth.

Activities for the Community Development Corporation (CDC) project focused on drafting an RFP to select four CDCs to participate in the project, based on earlier project planning and research and with input from the Massachusetts Association of Community

Development Corporations. The RFP is expected to be completed and issued in early November and the four CDCs selected in early January 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)

10-27-2011