

**U.S. DEPARTMENT OF COMMERCE**

**Performance Progress Report**

2. Award Or Grant Number

25-50-M09017

4. Report Date (MM/DD/YYYY)

01-20-2011

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:

12-31-2010

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

As of the date of this report, we have made progress in increasing participation from providers. Only 1 of the 3 pending non-disclosure agreements (NDAs) from Fall 2010 remains to be resolved. We've already received data for the Spring 2011 data submission from one of these providers and anticipate data from the other soon. This accounts for 2 of the 6 providers that said last round that they would participate but did not submit data. We are continuing to facilitate legal discussions to execute the one NDA that remains pending, so that they will update and complete their datasets.

Our primary focus for the Spring 2011 data collection is to get the rest of the providers on board that have said they would participate. However, we have also received data for the Spring 2011 submission from 1 of the 7 previously non-responsive providers and are in communication with another one, a small wireless provider with limited resources, and have offered to make every effort possible to ease their burden in preparing the information. We have also begun collaborating with other New England states to identify providers that we have in common and to share contact information. Some providers have also been more responsive to requests to submit missing or incomplete information. We have already received middle-mile data from 1 of the 8 providers that did not submit middle-mile data in previous rounds.

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 DSL service areas was completed in the first quarter of 2010, based on 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.

The Massachusetts Broadband Institute (MBI) continues to collect broadband service information from residents, businesses and from individual 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 2nd quarter of 2011 to improve the user interface and quality and usability of the information. The MBI continued targeted community anchor institution outreach in collaboration with the MA Board of Library Commissioners, giving presentations at two library events in October.

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

Based on the results of the mobile wireless and cable/DSL verification pilots projects described below, the methodologies will be revised and rolled out statewide, with a focus on low-confidence areas.

10g. Have you initiated verification activities?  Yes  No

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

A drive study pilot was performed, in collaboration with Fitchburg State University, to verify wireless coverage in 22 towns in north central Massachusetts. Android phones from each of the four mobile broadband companies operating in Massachusetts were loaded with software from QoS Solutions and used by 28 student volunteers to capture wireless capacity, signal-level and network quality information. An evaluation of the pilot project methodology and results is in progress and preparations are being made to roll out the project in other regions throughout the state in 2011.

In collaboration with the Franklin Regional Council of Governments (FRCOG) and the Montachusett Regional Planning Commission (MRPC), preparations for a cable and DSL verification pilot are also underway to leverage local knowledge of cable and DSL service availability and infrastructure in 26 towns in western MA and 22 towns in north central Massachusetts. Community representatives, members of local broadband committees or other individuals knowledgeable about local broadband availability, will provide feedback on cable and DSL maps of their town, including the last known service location along a road. Community representatives were identified and notified of the project and informational meetings were scheduled for the first week of 2011. Map templates have been prepared and are ready for production and distribution following the meetings.

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

Verification activities have begun and will continue throughout 2011.

## Staffing

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

3.84

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 MBI is in the process of hiring an additional GIS Analyst during the next quarter. A senior project manager and a project coordinator will also be hired to support the new application development and computer ownership and usage programs. The projects are expected to be fully staffed by the end of 2nd quarter of 2011.

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

5.22

10n. Staffing Table

Job Title	FTE %	Date of Hire
MBI Director or Deputy Director	25	12/10/2009
GIS Project Manager	94	05/14/2009
GIS Analyst	86	10/12/2010
GIS Analyst	24	11/23/2009
Temporary Outreach Coordinator	16	04/16/2010
GIS Intern	89	08/09/2010
Federal Compliance Manager	5	09/20/2010
Vendor Professional Services Consultants (e.g. Program, Engineering and Audit)	45	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	Planning Activities (Sub Recipient)	N	Y	11/01/2009	10/31/2012	58,978	22,876
Applied Geographics	Web Design and Development Services	Y	Y	06/14/2010	12/31/2010	31,348	0
BNC Consulting	Field Engineering Services For Data Verification	Y	Y	01/08/2010	01/08/2010	33,255	0
Deloitte & Touche	Annual Single Audit Services	Y	Y	11/01/2009	06/30/2011	25,000	0

Add Row

Remove Row

**Funding**

10p. How much Federal funding has been expended as of the end of the last quarter? \$698,671 10q. How much Remains? \$5,463,883

10r. How much matching funds have been expended as of the end of last quarter? \$440,146 10s. How much Remains? \$1,237,176

## 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	\$199,024	\$10,870	\$209,894
Personnel Fringe Benefits	\$403,312	\$20,234	\$423,546	\$65,354	\$3,706	\$69,060
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	\$9,152	\$0	\$9,152
Subcontracts Total	\$2,435,000	\$771,869	\$3,206,869	\$158,814	\$64,191	\$223,005
Subcontract #1	\$652,500	\$41,315	\$693,815	\$99,837	\$41,315	\$141,152
Subcontract #2	\$500,000	\$100,000	\$600,000	\$58,978	\$22,876	\$81,854
Subcontract #3	\$492,500	\$630,554	\$1,123,054	\$0	\$0	\$0
Subcontract #4	\$190,000	\$0	\$190,000	\$0	\$0	\$0
Subcontract #5	\$600,000	\$0	\$600,000	\$0	\$0	\$0
Construction	\$0	\$0	\$0	\$0	\$0	\$0
Other	\$857,884	\$757,687	\$1,615,571	\$42,043	\$341,145	\$383,188
Total Direct Costs	\$4,950,414	\$1,616,128	\$6,566,542	\$497,691	\$428,842	\$926,533
Total Indirect Costs	\$1,212,140	\$61,194	\$1,273,334	\$200,980	\$11,304	\$212,284
Total Costs	\$6,162,554	\$1,677,322	\$7,839,876	\$698,671	\$440,146	\$1,138,817
% Of Total	79	21	100	61	39	100

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

10v. If yes, please list

Maintenance costs for ArcGIS software this quarter was \$839.49. No additional 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; 2 ArcGIS licenses for \$15,815.00; and 2 ArcGIS extension licenses for \$4,500.00.

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.

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

Comprehensive datasets were submitted to the NTIA on October 8th containing information on wired broadband availability by census block and street segment, wireless broadband availability by service area, provider overview/speed information by county, middle-mile interconnection points and community anchor institution broadband services. These included data from 26 broadband providers, which was 7 more than the previous submission, and were accompanied by complete metadata and a methodology whitepaper.

The availability datasets were used to create statewide wireline and wireless broadband availability maps in PDF format that were posted in a new Map Gallery on the MBI web site for public access. Development of the Massachusetts interactive broadband map is almost complete and will be launched in the first quarter of 2011.

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

Many of the providers that submitted data for Spring 2010, did not provide updates for Fall 2010. This is most likely because their networks did not change from one round to the next, so we are making an effort this round to make it more clear in our emails that we need confirmation of no change and will follow up with earlier with phone calls and reminders as their deadline approaches.

Since most of the data was acquired and stored using 2009 vintage census blocks, additional effort was required to convert data back to the 2000 vintage census blocks while preserving links to the original data for validation and future updates. Data conversion models were created to automate some of this process, but we look forward to moving to the 2010 Census Data to eliminate this problem and improve the overall data accuracy.

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

No additional information at this time.

## 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

Current activities are focused on the review of barriers to broadband deployment, community outreach activities and the production of a last mile summit for broadband providers.

MBI planning grant partner, WesternMA Connect, in collaboration with the Regional Planning Agencies (RPAs), continues to review municipal bylaws to identify barriers to broadband deployment (e.g., wireless siting restrictions) and is developing databases of route

conditions and wireline and wireless facilities. The Connect and RPA's will then work with communities to remove any barriers and prepare educational materials for other communities.

The Connect also continues to help with community capacity and outreach activities, with a particular focus on the MassBroadband 123 network communities, and recently facilitated a review of community anchor institutions to be connected to the network. They will also be organizing a last mile provider summit to be held in March that will bring together the communities of western and central Massachusetts along with municipal light plants and current and potential last mile providers. This summit will be the kick-off of the recruitment effort of last mile investment in the unserved areas of the Commonwealth.

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

N/A

### 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?

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

The MBI has also begun work on the new application development project to create a web portal for the veteran's community. A core leadership team has been assembled and a procurement was issued for a consultant to conduct a needs assessment and develop the product requirements for the portal. A public event to announce the project was held in November in collaboration with Lieutenant Governor Tim Murray, the National Guard and the MA Department of Veterans' Services. The team is preparing for a project kick-off in January, a veteran's community design charette in March, and a procurement for a web developer in early summer.

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)

X

12d. Email Address

erlandson@masstech.org

12b. Signature of Authorized Certifying Official

Submitted Electronically

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

02-23-2011