<table>
<thead>
<tr>
<th><strong>U.S. DEPARTMENT OF COMMERCE</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Performance Progress Report</strong></td>
</tr>
<tr>
<td><strong>2. Award Or Grant Number</strong></td>
</tr>
<tr>
<td>25-50-M09017</td>
</tr>
<tr>
<td><strong>4. Report Date (MM/DD/YYYY)</strong></td>
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<td>07-25-2011</td>
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</table>

1. **Recipient Name**  
Massachusetts Tech. Park Corporation dba MTC

3. **Street Address**  
75 North Drive,

5. **City, State, Zip Code**  
Westborough, MA 01581

6. **Designated Entity On Behalf Of:**  
N/A

7. **Project / Grant Period**  
7a. Start Date: (MM/DD/YYYY)  
11-01-2009  
7b. End Date: (MM/DD/YYYY)  
10-30-2014  
7b. Reporting Period End Date:  
06-30-2011

8. **Final Report?**  
☑ Yes  
☐ No

9. **Report Frequency**  
☐ Quarterly  
☐ Semi Annual  
☐ Annual  
☐ Final

10. **Broadband Mapping**  
10a. Provider Table

<table>
<thead>
<tr>
<th>Number of Providers Identified</th>
<th>Number of Providers Contacted</th>
<th>Number of Agreements Reached for Data Sharing</th>
<th>Number of Partial Data Sets Received</th>
<th>Number of Complete Data Sets</th>
<th>Number of Data Sets Verified</th>
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</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

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**

There are 4 providers that have said they would participate but have not provided data yet. Our primary focus continues to be getting these providers on board and improving the completeness and quality of the data from participating providers.

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 this so we can identify them accordingly on the list. We are reaching out to other states to determine if they have received responses from these providers and to get their contact information for the providers that do qualify.

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.

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

In addition to existing verification activities, 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
In collaboration with WesternMA Connect, the Franklin Regional Council of Governments (FRCOG) and the Montachusett Regional Planning Commission (MRPC), the MBI is wrapping up the pilot cable and DSL verification project involving service area feedback from community representatives. FRCOG and MRPC will make final attempts to work with towns with outstanding maps and are developing a project guidance document to be used by the remaining Regional Planning Agencies (RPAs) in western Massachusetts and Cape Cod.

5 additional drives studies were performed to continue improving wireless service area verification methodologies. Android phones from each of the four mobile broadband companies operating in Massachusetts were loaded with software from QoS Solutions to capture wireless capacity, signal-level and network quality information and will also be used to run the FCC Speed Test. A drive study Martha’s Vineyard was performed by the MBI with assistance from the Martha’s Vineyard Commission. A drive study in southwestern MA was performed by Westfield State University students. Three additional drive studies were performed by the MBI in central and western MA to complete the verification coverage. Throughout the project, the MBI has been working the software vendor QoS Solutions to improve the software performance and quality of the resulting data. Results from the FCC Speed Test phone logs were compared to the Speed Test results provided by the FCC, which requires follow-up with the FCC. Results from the QoS software also require further analysis and comparison to mobile wireless coverages received from the service providers.

Verification activities have begun and will continue throughout the project. Wireless drive studies will be completed in 2011. Cable and DSL community outreach verification will be expanded to the remainder of western Massachusetts and Cape Cod and will continue into 2012.

**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 5.72. (MTC = 3.85; Sub-Recipient = 1.18 and Vendor=.69). This number includes the following positions:
1. The 3.85 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 1.18 subrecipient jobs are comprised of programmatic and administrative support.
3. The .69 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

All of the positions for MTC Staff are currently filled but are not operating at full capacity yet due to the needs required for the project. Additionally, MTC’s Vendors and MTC Sub-Recipients will only be utilized based on the needs of the project. The timeline for the project will not be affected.

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

<table>
<thead>
<tr>
<th>Job Title</th>
<th>FTE %</th>
<th>Date of Hire</th>
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<tbody>
<tr>
<td>MBI Director or Deputy Director</td>
<td>31</td>
<td>12/10/2009</td>
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<tr>
<td>GIS Project Manager</td>
<td>94</td>
<td>05/14/2009</td>
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<tr>
<td>GIS Analyst</td>
<td>95</td>
<td>10/12/2010</td>
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<tr>
<td>Federal Compliance Manager</td>
<td>16</td>
<td>09/20/2010</td>
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<tr>
<td>Project Coordinator</td>
<td>65</td>
<td>08/09/2010</td>
</tr>
<tr>
<td>GIS Analyst</td>
<td>20</td>
<td>04/11/2011</td>
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</table>
### Executive Administrative Assistant

2 04/11/2011

### Veterans' Portal Project Manager

62 03/28/2011

### Vendor Professional Services Consultants (e.g. Program and Audit)

69 10/1/2010

### Subrecipient Staff (Program and Administrative)

100 10/1/2010

### Subrecipient Staff (Program and Administrative)

18 10/1/2010

<table>
<thead>
<tr>
<th>Sub Contracts</th>
<th>10o. Subcontracts Table</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name of Subcontract</td>
<td>Purpose of Subcontract</td>
</tr>
<tr>
<td>Western MA Connect (#1)</td>
<td>Planning Activities</td>
</tr>
<tr>
<td>Western MA Connect (#2)</td>
<td>Mapping Data Verification Activities (Subrecipient)</td>
</tr>
<tr>
<td>BNC Consulting (George Brodeur)</td>
<td>Field Engineering Services for Data Verification</td>
</tr>
<tr>
<td>Deloitte &amp; Touche (#4)</td>
<td>Annual Single Audit Services</td>
</tr>
<tr>
<td>Applied Geographics</td>
<td>Web Design and Development Services</td>
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### Funding

10p. How much Federal funding has been expended as of the end of the last quarter? $1,138,845  10q. How much Remains? $5,023,709

10r. How much matching funds have been expended as of the end of last quarter? $452,934  10s. How much Remains? $1,224,388

10t. Budget Worksheet

<table>
<thead>
<tr>
<th>Mapping Budget Element</th>
<th>Federal Funds Granted</th>
<th>Proposed In-Kind</th>
<th>Total Budget</th>
<th>Federal Funds Expended</th>
<th>Matching Funds Expended</th>
<th>Total Funds Expended</th>
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<td>$57,408</td>
<td>$1,202,256</td>
<td>$311,505</td>
<td>$10,870</td>
<td>$322,376</td>
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<tr>
<td>Personnel Fringe Benefits</td>
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<td>$423,546</td>
<td>$101,782</td>
<td>$3,706</td>
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<tr>
<td>Equipment</td>
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<td>$67,400</td>
<td>$23,304</td>
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<td>Materials / Supplies</td>
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<td>$24,500</td>
<td>$14,039</td>
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<tr>
<td>Subcontracts Total</td>
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<td>Other</td>
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<td>$757,687</td>
<td>$1,615,571</td>
<td>$64,142</td>
<td>$341,145</td>
<td>$405,287</td>
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</table>
### Hardware / Software

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

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.

10y. If yes, please list

N/A

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

Broadband data was submitted to the National Telecommunications and Information Administration (NTIA) on April 1st, 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 data from 30 broadband service providers, including 5 new providers since the last submission.

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

We have had mixed results from our cable and DSL verification project involving participation from community representatives. The level of involvement and quality of feedback has been significantly greater in the western Massachusetts communities. The people of western Massachusetts represent the majority of the unserved and underserved population in the state and are therefore much more aware of and actively involved in efforts to expand and improve broadband access. As a result, the MBI has decided to focus future community outreach verification efforts on the remainder of western Massachusetts and Cape Cod, which is also an underserved area.

The MBI is continuing to make improvements to the list of broadband service providers in the state. It has been more challenging than expected to determine which companies qualify as broadband service providers, as defined by the NOFA. We are reaching out to...
other states to collaborate on this issue.

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

The statewide wireline and wireless broadband availability maps were updated with the data from the April 1, 2011 submission and made available on the MBI web site. Data submission reports were also prepared for the participating broadband service providers for their review and verification.

Three members of the MBI staff participated in the State Broadband Initiative (SBI) grantee meeting in Dallas, TX in April 2011 and have benefited greatly from the resulting collaboration between states and with the NTIA.

The MBI has been preparing data templates and conversion strategies to prepare to use 2010 Census data for the next data collection round. The MBI is also currently working on a Request for Information (RFI), to be released next quarter, to determine the best approach for gathering address point data from the public using web and/or mobile phone applications. The input received through the RFI may be used to define the scope for the crowd sourcing application development Request for Proposal (RFP).

**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 (RPAs), have completed an initial review of municipal telecom bylaws and preliminary databases on route conditions and existing wireless and wireline facilities. They continue to perform community outreach to increase awareness and engage residents, businesses and public officials and to develop educational materials to include in municipal toolkits. A community will be selected to develop model zoning bylaws for wireless broadband technology deployment that can be referenced by other communities. The RPAs will continue to work with municipalities on an individual basis to address their broadband needs.

The Connect is preparing to conduct a workshop to educate RPA staff on wireless broadband technology and to initiate a discussion among RPA staff about how zoning regulations handle this type of technology deployment.

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

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<td>Travel</td>
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</tbody>
</table>
### 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 the needs assessment, requirements and RFP. A series of focus groups were conducted with veterans and active duty personnel across broad age and gender demographics to further refine needs and requirements and to validate earlier findings. The final needs and requirements documents and findings were completed and presented to the project Core Team for review and approval. The findings were used as a basis to draft the specifications for the portal contained in the RFP. The RFP was completed by the end of June and will be issued in early July to solicit responses from vendors who will build the actual portal web site. Responses to the RFP will be due in early August, with an award expected in early September and development work to begin soon after.

Other activities included participating in the Run to Home Base event at Fenway Park on May 22, 2011 to help raise awareness in the veterans’ community for the portal project. The Home Base Program, a key partner in the portal project, sponsored the event. In addition, an Advisory Group of key advocates within the veterans’ community was formed in June. This group will provide advice on development work and will assist in advocating for the portal to the community.

Activities for the Community Development Corporation (CDC) project focused on project planning and research in preparation for completing an RFP to identify four CDCs to participate in the project to provide sub-grants and technical assistance to small businesses and non-profits. Project staff met with the director of the Massachusetts Association of Community Development Corporations, a key project stakeholder, to gather input for the RFP process. We expect the RFP to be completed and issued by the end of 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.

<table>
<thead>
<tr>
<th>12a. Typed or Printed Name and Title of Authorized Certifying Official</th>
<th>12c. Telephone (area code, number, and extension)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lisa Erlandson</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>12b. Signature of Authorized Certifying Official</th>
<th>12d. Email Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>Submitted Electronically</td>
<td><a href="mailto:erlandson@masstech.org">erlandson@masstech.org</a></td>
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</tbody>
</table>

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

08-16-2011