

**U.S. DEPARTMENT OF COMMERCE**

**Performance Progress Report**

2. Award Or Grant Number

42-50-M09065

4. Report Date (MM/DD/YYYY)

09-07-2011

1. Recipient Name

Executive Office of the Commonwealth of Pennsylvania

6. Designated Entity On Behalf Of:

N/A

3. Street Address

Commonwealth Avenue, 207 Finance Building,

8. Final Report?

- Yes  
 No

9. Report Frequency

- Quarterly  
 Semi Annual  
 Annual  
 Final

5. City, State, Zip Code

Harrisburg, PA 17120

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

01-01-2010

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

12-31-2014

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

While the Pennsylvania Broadband Mapping team has been quite successful in reaching agreements with and securing complete data from 94 of the 120 (78%) broadband providers operating within the state, the project team has also encountered some challenges in obtaining the full cooperation of the remaining 26 (22%) providers. More specifically, as of September 30, 2011:

- 10 of 120 (8%) broadband providers contacted explicitly indicated to the outreach staff that they would not participate in the program.
- 6 of 120 (5%) broadband providers indicated they would participate but have not supplied their data yet. The project team will continue to outreach to each of them in preparation for the April 2012 update cycle.
- 9 of 120 (8%) broadband providers contacted had not responded to repeated contacts by the project team. The project team will continue to outreach to each of them in preparation for the April 2012 update cycle.
- 1 of 120 (1%) broadband providers contacted have submitted partial data sets, but has yet to submit complete data. The project team will continue to outreach to this provider to obtain complete data for the April 2012 update cycle.

Further, of the 94 providers whose data was included in the October 2011 data delivery, the following challenges are noted:

- 5 of those providers were satellite providers who indicated that they cover 100% of the state and have yet to provide details on where dead zones exist. Their data indicating 100% coverage was included in the October 2011 data submittal.

For more details, please refer to the Q3 Supplemental Answers Document.

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

The Pennsylvania broadband mapping project is collecting source data directly from broadband service providers and community anchor institutions. Where the source data for community anchor institutions is lacking, the project team is leveraging data elements from other sources. For example, for K-12 Schools, current and historical data from the Pennsylvania Technology Inventory (PATI), a survey administered annually by the Pennsylvania Department of Education (PDE), which includes detailed Internet connectivity information,

was used to populate Pennsylvania's community anchor institution database. In addition, this quarter, the project partnered with PDE to incorporate connectivity data sourced from an annual state survey of libraries.

The project continues to work closely with the Commonwealth's Geospatial Technologies Steering Committee, relevant state agencies/offices (e.g. Department of Community and Economic Development, Governor's Office of Administration, Department of Health, Department of Education, Pennsylvania Emergency Management Agency, Governor's Center for Local Government Services, State System of Higher Education, Public Utility Commission, etc.), and other external partners (e.g. Economic Development Districts, Pennsylvania Commission for Community Colleges, public safety organizations and associations, etc.) to seek out additional data sources and partners to augment the data collection and verification efforts.

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

No new verification tools/resources were implemented since the last reporting period for the quarter ending 06/30/2011.

Pennsylvania's broadband mapping project employs a multi-prong approach to ensure the provider data is accurate and complete. Specifically, the project employs the following validation methodologies and resources:

- \*\*Quality Assurance/Quality Control
- \*\*Data Validation via Market Intelligence Sources
- \*\*Data Validation Using State Supplied Data Points
- \*\*Field Validation
- \*\*Wireless Coverage Analysis
- \*\*Topology Validation
- \*\*Automated Validation Processing
- \*\*Provider Validation
- \*\*Confidence Level/Statistical Modeling
- \*\*SBDD Check Submission
- \*\*Stakeholder Validation

For a description of each component, please refer to the Q3 Supplemental Answers Document.

A white paper more fully describing Pennsylvania's DATA DEVELOPMENT & VALIDATION METHODOLOGIES was provided with the October 2011 data submission.

10g. Have you initiated verification activities?  Yes  No

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

All of the verification activities listed above in 10f were performed on the October 2011 data submission, with the exception of a portion of the Stakeholder Validation component, as discussed below in 10i. The verification processes described are repeatable for each semi-annual data update cycle.

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

As described in the previous items 10f and 10h, rigorous verification activities were conducted for the October 2011 data submittal to the NTIA. Full implementation of the following portion of the Stakeholder Validation component is planned for the April 2012 delivery:

\*\*Stakeholder Validation: Aggregated broadband coverage maps will be provided to the 10 regional Economic Development Districts (EDD) and other project partners for review relative to their jurisdictions and the interactive coverage maps. Currently, some comments has been received from the such entities through the feedback function on the state's public broadband mapping website and these were addressed in the October 2011 data submission. Full implementation of a secure broadband mapping website where project partners can review detailed provider coverage data is planned for the April 2012 delivery and will continue for subsequent update cycles.

## Staffing

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

The staffing on the project increased during the 3rd Quarter 2011 to 3.59 FTEs, comprised of 23 unique individuals working on this project during the quarter. All of these personnel were retained staff.

NOTE: It should be noted that when adding up the numbers reported in the staffing table (10n), it totals 3.60 not 3.59. This .01 discrepancy is due to rounding and the fact that the staffing table below is a less refined measure of the FTE complement working on this project than the 1512 FTE calculation method used by the grantee, wherein all lines are summed before rounding.

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

N/A

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

The project peaked at full staffing during 2nd Quarter 2010 at 9.88 FTEs due to project ramp up, and development/validation of the May 2010 initial data submittal to the NTIA. A cumulative total of 74 unique individuals have worked on the project since inception.

10n. Staffing Table

Job Title	FTE %	Date of Hire
State Project Manager	0	01/01/2010
Program Manager	52	01/27/2010
Administrative Manager	0	01/27/2010
Collaboration Manager	4	01/27/2010
IT Manager	0	01/27/2010
Data/Mapping Manager	0	01/27/2010
GIS Specialist - RK	46	02/18/2010
GIS Specialist - MJ	3	02/24/2010
GIS Specialist - JS	26	02/16/2010
GIS Specialist - RH	4	02/18/2010
GIS Specialist - KN	27	11/05/2010
GIS Specialist - Billock	29	03/16/2011
GIS Specialist - TK	3	09/26/2011
GIS Specialist - ST	14	09/12/2011
Software Developer - XC	6	01/28/2010
Software Developer - KK	6	04/14/2010
Software Developer - MO	1	09/28/2011
Field Manager	15	01/27/2010
Outreach Associate	13	01/27/2010
Sub - Field Technician	0	03/03/2010
Sub - Software Developer	94	05/03/2010
Sub - Telecom Consultant	0	02/18/2010
Sub - Sr. GIS Analyst	0	04/12/2010
Sub - GIS Programmer	11	03/08/2010
Sub - GIS Technician	0	
Sub - Sr. Consultant	0	02/01/2010

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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
Michael Baker Jr. Inc.	Outreach, data collection, integration, analysis, verification, website development and hosting, and other broadband mapping-related services over the term of the 2-year broadband mapping project	Y	Y	01/27/2010	12/31/2011	1,547,700	0
The Pennsylvania State University	Event planning, coordination, and logistical support related to hosting of Pennsylvania Broadband Summit in September 2010	N	Y	06/04/2010	09/21/2010	33,198	0
Subcontracts Yet to Be Executed  Listed as Subcontract #3 in the Budget Worksheet (10t)	Subcontracts are either in process or yet to be awarded to carry out the following supplemental project activities (broadband mapping years 3-5; technical assistance; manufacturing benchmark study; adoption surveys; regional working groups; cost modeling)	N	N	09/27/2010	12/31/2014	4,501,347	1,000,000

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**Funding**

10p. How much Federal funding has been expended as of the end of the last quarter? \$1,607,518      10q. How much Remains? \$5,664,703

10r. How much matching funds have been expended as of the end of last quarter? \$689,633      10s. How much Remains? \$1,478,767

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	\$785,498	\$539,365	\$1,324,863	\$82,490	\$235,694	\$318,184
Personnel Fringe Benefits	\$308,071	\$211,540	\$519,611	\$28,178	\$29,225	\$57,403
Travel	\$0	\$0	\$0	\$0	\$415	\$415
Equipment	\$16,664	\$0	\$16,664	\$0	\$0	\$0
Materials / Supplies	\$159,823	\$0	\$159,823	\$0	\$0	\$0
<b>Subcontracts Total</b>	<b>\$6,082,245</b>	<b>\$1,000,000</b>	<b>\$7,082,245</b>	<b>\$1,496,818</b>	<b>\$0</b>	<b>\$1,496,818</b>
Subcontract #1	\$1,547,700	\$0	\$1,547,700	\$1,463,620	\$0	\$1,463,620
Subcontract #2	\$33,198	\$0	\$33,198	\$33,198	\$0	\$33,198

Mapping Budget Element	Federal Funds Granted	Proposed In-Kind	Total Budget	Federal Funds Expended	Matching Funds Expended	Total Funds Expended
Subcontract #3	\$4,501,347	\$1,000,000	\$5,501,347	\$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	\$4,000	\$417,495	\$421,495	\$32	\$424,299	\$424,331
<b>Total Direct Costs</b>	<b>\$7,356,301</b>	<b>\$2,168,400</b>	<b>\$9,524,701</b>	<b>\$1,607,518</b>	<b>\$689,633</b>	<b>\$2,297,151</b>
<b>Total Indirect Costs</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>Total Costs</b>	<b>\$7,356,301</b>	<b>\$2,168,400</b>	<b>\$9,524,701</b>	<b>\$1,607,518</b>	<b>\$689,633</b>	<b>\$2,297,151</b>
<b>% Of Total</b>	<b>77</b>	<b>23</b>	<b>100</b>	<b>70</b>	<b>30</b>	<b>100</b>

### Hardware / Software

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

10v. If yes, please list

N/A

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

N/A

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

10y. If yes, please list

No additional data sets have been purchased since the last reporting period for the quarter ending 06/30/2011. The project continues to use the following third party data sets:

**\*\*Telogical/Centris Wireline Market Intelligence Database:** This data set was developed using a methodology that incorporates deep web crawling and additional means, including direct mail harvesting and advertising collaterals (including door to door) to gather cable and telecommunication provider information, and is commercially available. This data set is used as a validation source for provider service area coverage, Technology of Transmission, and Speed. - \$75,000

**\*\*American Roamer Wireless Market Intelligence Data:** Commercially available data set used as an independent source to verify information submitted by Providers of wireless broadband service. This data set is used as a validation source for provider service area coverage. - \$14,956

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

10aa. If yes, please list

N/A

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

**\*\*Provider Resistance:** As indicated in response to 10d, the project team has encountered several broadband providers who have refused to participate or have not responded to continued outreach attempts. Mitigation: For those companies that have indicated that they are resource-constrained, Pennsylvania, acting through its consultant Michael Baker Jr, Inc., will continue to identify ways to partner with providers and provide the resources, expertise, and hands-on assistance necessary to produce acceptable maps of their



11i. Planning Worksheet

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?

The supplemental Project Plan included the following additional components to be implemented over the course of project years 2-5.

**\*\*BROADBAND PLANNING/COLLABORATION:** Aimed at encouraging adoption by certain constituencies and more vulnerable communities through implementation of the state broadband plan, regional working groups, measurement of broadband utilization, identification of barriers to adoption, and awareness and outreach efforts.

**\*\*TECHNICAL ASSISTANCE:** Involves the implementation of a statewide broadband outreach, training, technical, and implementation assistance program to foster broadband adoption among community anchor institutions, local governments, first responders, and small businesses. By focusing on institutional users, this project will build capacity locally and stimulate job creation.

**\*\*STATE CAPACITY BUILDING:** Supports three key state positions, whose dedicated time to this effort are integral to ensure the successful direction, implementation, and monitoring of the state's SBDD broadband data collection, mapping, and other program purposes, while building capacity at the state level and coordinating the State Broadband Plan. In addition, this project supports the cost to physically transition the mapping platform in-house from the consultant during 2014.

**\*\*MANUFACTURING BENCHMARKING STUDY:** Supports a statewide research and benchmarking effort of the availability and contribution of broadband internet telecommunications to the Pennsylvania manufacturing sector by evaluating its impact on growth and productivity.

**\*\*COST MODELING:** Involves the engagement of one or more consultants to conduct broadband cost modeling. The outcome will provide information and perspective on what considerations – financial and otherwise – inform the business case to trigger deployment.

Pennsylvania received formal approval/notice to proceed from NTIA in Q2-2011. Related contractual/procurement arrangements commenced in Q3-2011.

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

**STATE CAPACITY BUILDING:** Due to the recent change in administration in Pennsylvania, the Commonwealth is currently reevaluating the State Capacity Building portion of its supplemental proposal (which supports the project team managing this program) to ensure the best organizational plan and fit within state government moving forward, while fostering sustainability. Pennsylvania's staffing/organizational recommendations were finalized during Q3-2011 and a final plan will be adopted and executed in Q4-2011. The commonwealth's project director will keep NTIA informed regarding developments in this area.

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

Members of Pennsylvania's team participated with neighboring states in a Mid-Atlantic Region SBI Grantee Meeting; attended NTIA-sponsored webinars; and continued to engage various stakeholders, including Broadband Technology Opportunities Programs (BTOP) and Broadband Initiatives Program (BIP) awardees, and the state's Health Information Exchange coordinator to share information and explore coordination opportunities.

The commonwealth's project director welcomes feedback on any aspect of the project so that Pennsylvania can improve its processes and performance.

**\*\*10.q. Additional Explanation: NOTE:** On 11/10/2011, PPR response #10.q. above (Remaining Federal Funds) was revised at the request of the federal program office to match SF425 response #10.h. (Unobligated Balance of Federal Funds). At the close of Q3-2011, \$1,607,518 had been expended (as indicated in SF425 response #10.e. Federal Share of Expenditures and PPR budget

table #10.t. Total Federal Funds Expended) and an additional \$84,080 in federal funding (as indicated in SF425 10.f. Federal Share of Unliquidated Obligations) was committed to use and/or under contract, however had not yet been expended/paid out. Therefore, PPR response #10.q. above (\$5,664,703) reflects the total amount of federal funds that have not yet been expended OR committed. All figures reported on both the SF425 and PPR are correct and accurate, however the SF425 allow for tracking of both actual expenditures and committed but unliquidated funds, while the PPR budget table accounts only for actual expenditures.



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

Sue Suleski

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

717-787-5440

12d. Email Address

ssuleski@state.pa.us

12b. Signature of Authorized Certifying Official

Submitted Electronically

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

11-10-2011