U.S. DEPARTMENT OF COMMERCE **Performance Progress Report**	2. Award Or Grant Number 42-50-M09065
	4. Report Date (MM/DD/YYYY) 03-26-2012

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: 03-31-2012	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 92 of the 121 (76%) broadband providers operating within the state, the project team has also encountered some challenges in obtaining the full cooperation of the remaining 29 (24%) providers. More specifically, as of March 31, 2012:

• 12 of 121 (10%) broadband providers contacted explicitly indicated to the outreach staff that they would not participate in the program.

• 3 of 121 (2%) broadband providers indicated they would participate but did not supplied their data for the April 2012. The project team will continue to outreach to each of them in preparation for the October 2012 update cycle.

• 14 of 121 (12%) 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 October 2012 update cycle.

Further, of the 92 providers whose data was included in the April 2012 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 April 2012 data submittal.

• Reseller data was to be included in the April 2012 NTIA data submission. Unfortunately, no resellers supplied their information to be included; 53 such companies were contacted, 49 of which were unresponsive and four (4) indicated they would participate but did not provide data for the April 2012 data submittal. Additional outreach activities are planned to spawn their participation in the project.

Additionally, coverage data for 3 providers was removed from the April 2012 submission, as they indicated they are no longer providing broadband services.

For more details, please refer to the Q1-2012 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 Governor 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

Provider Confidence Maps with lower confidence areas were distributed to broadband service providers with the request for data current as of December 31, 2011 and changes were included in the April 2012 data submission. Also, progress has been made on the secure broadband mapping website which will support Stakeholder Validation.

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
**Provider Confidence Maps
**SBDD Check Submission
**Stakeholder Validation

For a description of each component, please refer to the Q1-2012 Supplemental Answers Document.

A white paper more fully describing Pennsylvania's DATA DEVELOPMENT & VALIDATION METHODOLOGIES was provided with the April 2012 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 April 2012 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 April 2012 data submittal to the NTIA. Full implementation of the following portion of the Stakeholder Validation component are planned for the October 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 April 2012 data submission. Full implementation of a secure broadband mapping website where project partners can review detailed provider coverage data is planned for the October 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 1st Quarter 2012 to 3.66 FTEs, comprised of 11 unique individuals working on this

project (and paid with federal grant dollars) during the quarter. All of these personnel were retained staff.

NOTE: It should be noted that when adding up the numbers reported below in the staffing table (#10.n), the total is 3.67, not 3.66 as reported on the 1512 submission for the quarter ending 03/31/2012. 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 recipient 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 Q2-2010 at 9.88 FTEs (paid with federal grant dollars) due to project ramp up, and development/validation of the May 2010 initial data submittal to the NTIA. A cumulative total of 79 unique individuals have worked on the project (and were paid with federal grant dollars) since inception.

10n. Staffing Table

Job Title	FTE %	Date of Hire
Program Manager	62	01/27/2010
GIS Specialist - RK	26	02/18/2010
GIS Specialist - MJ	27	02/18/2010
GIS Specialist - JS	20	02/24/2010
GIS Specialist - ST	24	09/12/2011
Software Developer - XC	18	01/28/2010
Software Developer - KK	67	04/14/2010
Software Developer - WZ	1	3/16/2012
Field Manager	11	01/27/2010
Outreach Associate	13	01/27/2010
Sub - Software Developer	98	05/03/2010

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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. Listed as Subcontract #1 in the Budget Worksheet (10t)	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

PPR, Page 3 of 8

The Pennsylvania State University Listed as Subcontract #2 in the Budget Worksheet (10t)	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
Michael Baker Jr. Inc. Listed as Subcontract #3 in the Budget Worksheet (10t)	Outreach, data collection, integration, analysis, verification, website development and hosting, and other broadband mapping-related services over the term of the 5-year broadband mapping project	Y	Y	01/12/2012	06/30/2014	2,017,494	0
SUBCONTRACTS YET TO BE EXECUTED Listed as Subcontract #5 in the Budget Worksheet (10t)	Subcontacts are either in process or yet to be awarded to carry out the following supplemental project activities (technical assistance; manufacturing benchmark study; adoption surveys; regional working groups; cost modeling)	N	N	09/27/2010	12/31/2014	2,483,853	1,000,000

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Funding

10p. How much Federal funding has been expended as of the end of the last quarter? $1,692,820   10q. How much Remains? $3,645,987

10r. How much matching funds have been expended as of the end of last quarter? $746,958   10s. How much Remains? $1,421,442

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	$278,997	$361,487
Personnel Fringe Benefits	$308,071	$211,540	$519,611	$28,178	$43,356	$71,534
Travel	$0	$0	$0	$0	$416	$416
Equipment	$16,664	$0	$16,664	$0	$0	$0
Materials / Supplies	$159,823	$0	$159,823	$0	$0	$0
Subcontracts Total	$6,082,245	$1,000,000	$7,082,245	$1,580,898	$0	$1,580,898
Subcontract #1	$1,547,700	$0	$1,547,700	$1,547,700	$0	$1,547,700
Subcontract #2	$33,198	$0	$33,198	$33,198	$0	$33,198
Subcontract #3	$2,017,494	$0	$2,017,494	$0	$0	$0
Subcontract #4	$0	$0	$0	$0	$0	$0
Subcontract #5	$2,483,853	$1,000,000	$3,483,853	$0	$0	$0
Construction	$0	$0	$0	$0	$0	$0
Other	$4,000	$417,495	$421,495	$1,254	$424,189	$425,443
Total Direct Costs	$7,356,301	$2,168,400	$9,524,701	$1,692,820	$746,958	$2,439,778

Mapping Budget Element	Federal Funds Granted	Proposed In-Kind	Total Budget	Federal Funds Expended	Matching Funds Expended	Total Funds Expended
Total Indirect Costs	$0	$0	$0	$0	$0	$0
Total Costs	$7,356,301	$2,168,400	$9,524,701	$1,692,820	$746,958	$2,439,778
% Of Total	77	23	100	69	31	100

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 12/31/2011. 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. - $87,750

**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 and resellers 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 service areas from the data/format the provider has available.

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

Please refer to the Q1-2012 Supplemental Answers Document for additional information summarizing provider participation over the course of the project and sample maps from the state public broadband map.

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

ORGANIZATIONAL PLANNING - Strategic and organizational planning efforts continued related to the State Capacity Building component (which supports the project team managing this program) in an effort to ensure the best organizational plan and fit moving forward. The need to reevaluate the component was unexpected upon submission of the original proposal, but was critically necessary following the recent change in administration, various state agency restructuring, and multiple personnel changes. Although this effort has delayed the launch of some supplemental project components, it is both appropriate and wise to undertake this process now before the project is fully launched, so as to ensure the best use of limited state/federal funds, leverage operational efficiencies, increase program impact, and promote sustainability. Staffing/organizational recommendations were finalized during Q3-2011, presented during Q4-2011/Q1-2011. Execution of a new organizational and staffing plan is expected to occur during Q2-2012. The commonwealth's project director will continue to keep NTIA Program Staff informed of developments in this area and will update the work plan accordingly.

PROCUREMENT LOGISTICS - The commonwealth's project team continued contractual processing related to the execution of subgrants to carry out the scope of the Technical Assistance and Manufacturing Benchmark Study components. The commonwealth's project team also continued planning and preparations related to the issuance of procurements for the other project components.

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

N/A

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

11i. Planning Worksheet						
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 and continued through Q1-2012.

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 has reevaluated 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, presented during Q4-2011 and Q1-2012, and execution of a new organizational and staffing plan is expected to occur during Q2-2012. The commonwealth's project director will continue to keep NTIA Program Staff informed of developments in this area and will update the work plan accordingly.

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

Please refer to the Q1-2012 Supplemental Answers Document for additional information summarizing the current status of each project component; project management and communications updates; additional budget clarification/explanation; and case studies/examples from the Technical Assistance project component.

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) 717-705-5462
	12d. Email Address ssuleski@pa.gov
12b. Signature of Authorized Certifying Official Submitted Electronically	12e. Date Report Submitted (Month, Day, Year) 04-30-2012