

U.S. DEPARTMENT OF COMMERCE

Performance Progress Report

2. Award Or Grant Number
42-50-M09065

4. Report Date (MM/DD/YYYY)
10-08-2010

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? 9. Report Frequency
 Yes Quarterly
 No 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

8. Reporting Period End Date:
(MM/DD/YYYY)
09-30-2010

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
114	114	91	5	86	86

- 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 86 of the 114 (75%) broadband providers operating within the state, the project team has also encountered some challenges in obtaining the full cooperation of the remaining 28 (25%) providers. More specifically, as of September 30, 2010:

- 7 of 114 (6%) broadband providers contacted explicitly indicated to the outreach staff that they would not participate in the program. These companies are reflected on the attached spreadsheet, with a notation of "Refuse to participate" under the "NDA?" column.
- 9 of 114 (9%) broadband providers contacted had not responded to repeated contacts by the project team. These companies are reflected on the attached spreadsheet, with a notation of "No response" under the "Contact?" column. The project team will continue to outreach to each of them during the update cycles.
- 6 of 114 (5%) broadband providers contacted during the initial delivery cycle had indicated that they would supply their data, but have not yet done so and did not respond during the October 2010 data delivery request. These companies are reflected on the attached spreadsheet, with a notation of "Willing to Participate but Have Yet to Provide Data" under the "NDA?" column. The project team will continue to outreach to each of them during the update cycles.
- 5 of 114 (4%) broadband providers contacted have submitted partial data sets, but have yet to submit complete data. The project team will continue to outreach to each of them during the update cycles.
- 1 of 114 (1%) broadband providers contacted has continued to go back and forth on establishing an NDA and the project team is very near to coming to an agreement.

For more details, please refer to the Q3 Supplemental Answers Document and the PROVIDER DATA Excel spreadsheet.

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 provider coverage has gaps, the project team intends to fill the gaps with Telogical/Centris market intelligence information/data. 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, which includes detailed Internet connectivity information, was used to populate Pennsylvania's community anchor institution database.

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

PA's project employs a multi-prong approach to ensure the provider data is accurate and complete.

Quality Assurance/Quality Control: Screens and compares the data received from providers against the requirements set forth in the NOFA's Technical Appendix and subsequent clarification.

Data Validation via Market Intelligence Sources: Utilizes Telogical/Centris (wireline) and American Roamer (wireless) market intelligence data as independent sources to conduct analysis against Provider data.

Data Validation Using State Supplied Data Points: data collected by Pennsylvania state government, relative to Act 183 of 2004's requirement to build and maintain an Inventory of Broadband Services, is used as an additional source to validate provider data.

Field Validation: Broadband technicians visited designated locations to perform site verification.

Wireless Coverage Analysis: Utilizing the existing PAMAP LiDAR to generate an effective terrain model, fixed Wireless coverage is evaluated using line-of-sight methods, with key inputs being transmitter location and data on spectrum power levels and other transmission factors provided by carriers and public web sites.

Automated Validation Processing: All of the above verification data sources are integrated into a GIS utilized to auto-compare the validation layers against the Provider data and areas of discrepancy are flagged for reporting the data confidence level.

Provider Validation: Maps of completed provider service areas and data are supplied back to the providers for validation of the processed information or any questionable data.

Stakeholder Validation: Interactive broadband coverage maps are published online for individuals to query and provide feedback on accuracy. Further aggregated coverage maps will be provided to regional Economic Development Districts for review relative to their jurisdictions.

*NOTE: A white paper describing PA's DATA DEVELOPMENT & VALIDATION METHODOLOGIES was provided on 10/08/2010.

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 2010 data submission, with the exception of the two components discussed below in 10i.

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 item 10h, rigorous verification activities were conducted for the October 2010 data submittal to the NTIA. In addition, the following

****Confidence Level/Statistical Modeling:** Pennsylvania's consultant recently deployed a process called SEAS (System for Evaluation and Assessment Statistics) to automate the validation processes and calculate confidence level and statistical modeling of the data per provider at the census block and road segment level. - Full implementation of this component is planned for the April 2011 delivery and will continue for subsequent update cycles.

****Stakeholder Validation:** Aggregated broadband coverage maps will be provided to the 10 regional Economic Development Districts for review relative to their jurisdictions and the interactive coverage maps. Additional outreach will occur to solicit input from individuals and other relevant stakeholders on their accuracy. Full implementation of this component is planned for the April 2011 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 declined during the 3rd Quarter 2010 to 5.15 FTEs. All of the personnel were retained staff.

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.

10n. Staffing Table

Job Title	FTE %	Date of Hire
State Project Manager	100	01/01/2010
Program Manager	48	01/27/2010
Administrative Manager	0	01/27/2010
Collaboration Manager	6	01/27/2010
IT Manager	0	01/27/2010
Data/Mapping Manager	9	01/27/2010
GIS Specialist	87	01/27/2010
Software Developer	46	01/27/2010
Field Manager	15	01/27/2010
Outreach Associate	28	01/27/2010
Sub - Field Technician	0	03/03/2010
Sub - Software Developer	98	05/03/2010
Sub - Telecom Consultant	0	02/18/2010
Sub - Sr. GIS Analyst	0	04/12/2010
Sub - GIS Programmer	34	03/08/2010
Sub - GIS Technician	0	01/27/2010
Sub - Sr. Consultant	44	02/01/2010
Sub - Plan/Collaboration	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
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Funding

10p. How much Federal funding has been expended as of the end of the last quarter? \$1,372,410 10q. How much Remains? \$5,983,891

10r. How much matching funds have been expended as of the end of last quarter? \$511,050 10s. How much Remains? \$1,657,350

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	\$47,832	\$103,401	\$151,233
Personnel Fringe Benefits	\$308,071	\$211,540	\$519,611	\$16,647	\$40,554	\$57,201
Travel	\$0	\$0	\$0	\$0	\$0	\$0
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	\$1,307,900	\$0	\$1,307,900
Subcontract #1	\$1,547,700	\$0	\$1,547,700	\$1,307,900	\$0	\$1,307,900
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	\$4,000	\$417,495	\$421,495	\$31	\$367,095	\$367,095
Total Direct Costs	\$7,356,301	\$2,168,400	\$9,524,701	\$0	\$511,050	\$1,883,429
Total Indirect Costs	\$0	\$0	\$0	\$0	\$0	\$0
Total Costs	\$7,356,301	\$2,168,400	\$9,524,701	\$1,372,410	\$511,050	\$1,883,429
% Of Total	77	23	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

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

****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. - \$50,000

****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. - \$12,773

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 vendor, 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

Pennsylvania's broadband map is live and available at: www.broadbandinpa.com. This map accomplishes the parallel objectives of PA state Act 183 of 2004 and the federal SBDD program.

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

BROADBAND SUMMIT: The Commonwealth had previously received authority from NTIA to host a statewide Broadband Summit. This event was held in Camp Hill, PA, on September 20-21, 2010 and attracted in excess of 300 attendees representing a wide range of individuals and entities interested in broadband issues. The Summit included attendance and presentation from entities representing providers and technology companies; state and federal government officials; education entities; health care providers; economic developers and technology associations; public safety entities; local governments; and non-profits. The event met or exceeded our expectations on many levels.

FUTURE PLANNING ACTIVITIES – Milestones & Status: The Commonwealth is gearing up for the rollout of an aggressive and ambitious broadband planning agenda. Additional information will soon be formally submitted to NTIA. In compliance with the guidance from NTIA and with the Terms & Conditions of the grant, the Commonwealth will be submitting a more formal project plan, timeline, and cost estimate. Summarily speaking, the planning effort will serve to implement the goals of the state Broadband Plan and will involve: State Capacity Building; Survey of Broadband Utilization, Identification of Barriers to Adoption, and Formulation of Statewide Strategy; Regional Working Groups; Technical Assistance; a Manufacturing Benchmarking Study; and Cost Modeling

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

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

No serious issues have been encountered in the implementation of this project thus far. Two variables that could contribute to future challenges include:

****State Capacity Limitations:** Implementation of the SBDD effort rests primarily with two individuals (one from the Governor's Office of Administration and one from the Department of Community & Economic Development). - Mitigation: the recently awarded funding for "State Capacity Building" will help alleviate some of the internal resource and capacity challenges.

****Administration Change:** The impending change in administration in the Executive branch of state government (Gubernatorial election on November 2, 2010, in Pennsylvania) will bring upon some changes at the Cabinet level and at some senior management levels at state agencies. - Mitigation: State SBDD staff will work closely with the appropriate individuals (departing and arriving) during the transition period to avoid disruptions or interruptions in implementation and to ensure that there is ongoing awareness and senior-level support of the SBDD effort.

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

Feedback received from and opinions expressed by attendees at the statewide Broadband Summit organized by the Commonwealth on September 20-21, 2010 corroborate the need to move forward with the project components that have been suggested (adoption measurement and benchmarking, and identification of barriers to adoption; Regional Working Groups; technical assistance, and implementation of Statewide Broadband Plan, generally).

In light of the new work components authorized by NTIA as part of the amended and supplemental SBDD application approved in late September 2010, Pennsylvania officials are developing a formal Project Plan in support of future planning activities authorized under the original SBDD grant and the revised and supplemental grant award. This will address NTIA's request for review and approval of revised and detailed project plan, timeline, and cost estimates.

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

Planning Budget Element	Federal Funds Granted	Proposed In-Kind	Total Budget	Federal Funds Expended	Matching Funds Expended	Total Funds Expended
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?

With regard the continuance of the mapping and planning program, Commonwealth officials are working with the relevant agency stakeholders to ensure that appropriate internal requirements are addressed. For instance, the project team is working with:

- State Department of General Services to discuss bid requirements for future vendor procurements that will be required to implement the planning components of the grant;
- Internal Community of Practice agency group to obtain technical approvals related to amendment of relationship with mapping vendor and development of state capacity requirements to eventually take on the mapping responsibility; and
- State Budget Office, Chief Accountability Officer, and State Stimulus Oversight Commission to report on issues related to monitoring, performance measurements, and contractor diversity requirements

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

NTIA has been effective and proactive in sharing adequate and timely information with states via webinars, emails, PBWorks blog, etc. The Pennsylvania project team has appreciated the opportunity to engage in bi-weekly dialogue with the SBDD Program Office (Anne Neville, Phil English and Andrew MacRae) on the mapping and planning efforts and would like to continue these touchpoint calls with the NTIA if there is mutual interest to do so.

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

N/A

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

Luc Miron

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

7177055462

12d. Email Address

lmiron@state.pa.us

12b. Signature of Authorized Certifying Official

Submitted Electronically

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

10-28-2010

Performance Progress Report
OMB Approval Number: 0660-0034
Expiration Date: 08/31/2010