



**Application for Federal Assistance SF-424**

Version 02

**\*1. Type of Submission:**

- Preapplication
- Application
- Changed/Corrected Application

**\*2. Type of Application**

- New
- Continuation
- Revision

\* If Revision, select appropriate letter(s)

- A. Increase Award
- C. Increase Duration
- \*Other (Specify) \_\_\_\_\_

3. Date Received:

4. Applicant Identifier:

5a. Federal Entity Identifier:

\*5b. Federal Award Identifier:

**State Use Only:**

6. Date Received by State:

7. State Application Identifier:

**8. APPLICANT INFORMATION:**

\*a. Legal Name: Executive Office of the Commonwealth of Pennsylvania

\*b. Employer/Taxpayer Identification Number (EIN/TIN):  
23-6003107

\*c. Organizational DUNS:  
188655898

**d. Address:**

\*Street 1: Commonwealth Avenue  
Street 2: 207 Finance Building  
\*City: Harrisburg  
County: Dauphin  
\*State: PA: Pennsylvania  
Province: \_\_\_\_\_  
\*Country: USA: United States  
\*Zip / Postal Code 17120

**e. Organizational Unit:**

Department Name:  
Executive Office

Division Name:  
Office for Information Technology

**f. Name and contact information of person to be contacted on matters involving this application:**

Prefix: Mrs. \*First Name: Brenda  
Middle Name: \_\_\_\_\_  
\*Last Name: Orth  
Suffix: \_\_\_\_\_

Title: Deputy Secretary for Information Technology

Organizational Affiliation:  
Same as Applicant

\*Telephone Number: 717-787-5440

Fax Number: 717-787-4523

\*Email: borth@state.pa.us

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**\*9. Type of Applicant 1: Select Applicant Type:**

A.State Government

Type of Applicant 2: Select Applicant Type:

Type of Applicant 3: Select Applicant Type:

\*Other (Specify)

**\*10 Name of Federal Agency:**

Department of Commerce

**11. Catalog of Federal Domestic Assistance Number:**

11.558

CFDA Title:

State Broadband Data and Development Grant Program

**\*12 Funding Opportunity Number:**

0660-ZA29

\*Title:

State Broadband Data and Development Grant Program (SBDD)

**13. Competition Identification Number:**

Title:

**14. Areas Affected by Project (Cities, Counties, States, etc.):**

Pennsylvania statewide; includes 67 counties and all congressional districts in PA

**\*15. Descriptive Title of Applicant's Project:**

Data Collection, Integration, Verification, and Display

State Capacity Building

Technical Assistance

Regional/Local Technology Planning Teams

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**16. Congressional Districts Of:**

\*a. Applicant: PA-017

\*b. Program/Project: PA-All

**17. Proposed Project:**

\*a. Start Date: 01/01/2010

\*b. End Date: 12/31/2014

**18. Estimated Funding (\$):**

*a. Federal	_____	5,947,628
*b. Applicant	_____	
*c. State	_____	
*d. Local	_____	1,606,949
*e. Other	_____	
*f. Program Income	_____	
*g. TOTAL	_____	7,554,578

**\*19. Is Application Subject to Review By State Under Executive Order 12372 Process?**

- a. This application was made available to the State under the Executive Order 12372 Process for review on \_\_\_\_\_
- b. Program is subject to E.O. 12372 but has not been selected by the State for review.
- c. Program is not covered by E. O. 12372

**\*20. Is the Applicant Delinquent On Any Federal Debt? (If "Yes", provide explanation.)**

Yes       No

21. \*By signing this application, I certify (1) to the statements contained in the list of certifications\*\* and (2) that the statements herein are true, complete and accurate to the best of my knowledge. I also provide the required assurances\*\* and agree to comply with any resulting terms if I accept an award. I am aware that any false, fictitious, or fraudulent statements or claims may subject me to criminal, civil, or administrative penalties. (U. S. Code, Title 218, Section 1001)

\*\* I AGREE

\*\* The list of certifications and assurances, or an internet site where you may obtain this list, is contained in the announcement or agency specific instructions

**Authorized Representative:**

Prefix: Mrs.      \*First Name: Brenda

Middle Name: \_\_\_\_\_

\*Last Name: Orth

Suffix: \_\_\_\_\_

\*Title: Deputy Secretary for Information Technology

\*Telephone Number: 717-787-5440

Fax Number: 717-787-4523

\* Email: borth@state.pa.us

\*Signature of Authorized Representative:

*Brenda Orth*

\*Date Signed: 07/01/2010

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**\*Applicant Federal Debt Delinquency Explanation**

The following should contain an explanation if the Applicant organization is delinquent of any Federal Debt.

**BUDGET INFORMATION - Non-Construction Programs**

**SECTION A - BUDGET SUMMARY**

Grant Program Function or Activity (a)	Catalog of Federal Domestic Assistance Number (b)	Estimated Unobligated Funds		New or Revised Budget		Total (g)
		Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)	
1. SBDD	11.558	\$	\$	\$ 5,947,628.00	\$ 1,606,950.00	\$ 7,554,578.00
2.						0.00
3.						0.00
4.						0.00
5. Totals		\$ 0.00	\$ 0.00	\$ 5,947,628.00	\$ 1,606,950.00	\$ 7,554,578.00

**SECTION B - BUDGET CATEGORIES**

Object Class Categories	GRANT PROGRAM, FUNCTION OR ACTIVITY		Total (5)
	Federal (1)	Non-Federal (2)	
a. Personnel	\$ 643,296.00	\$ 435,964.00	\$ 1,079,260.00
b. Fringe Benefits	252,300.00	170,986.00	423,286.00
c. Travel	0.00	0.00	0.00
d. Equipment	16,664.00	0.00	16,664.00
e. Supplies	159,823.00	0.00	159,823.00
f. Contractual	4,871,545.00	1,000,000.00	5,871,545.00
g. Construction	0.00	0.00	0.00
h. Other	4,000.00	0.00	4,000.00
i. Total Direct Charges (sum of 6a-6h)	5,947,628.00	1,606,950.00	7,554,578.00
j. Indirect Charges			0.00
k. TOTALS (sum of 6i and 6j)	\$ 5,947,628.00	\$ 1,606,950.00	\$ 7,554,578.00
7. Program Income	\$	\$	\$ 0.00

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SECTION C - NON-FEDERAL RESOURCES					
(a) Grant Program	(b) Applicant	(c) State	(d) Other Sources	(e) TOTALS	
8. SBDD	\$	\$ 1,606,949.00	\$	\$	1,606,949.00
9.					0.00
10.					0.00
11.					0.00
12. TOTAL (sum of lines 8-11)	\$	\$ 1,606,949.00	\$	\$ 0.00	1,606,949.00

SECTION D - FORECASTED CASH NEEDS					
	Total for 1st Year	FUTURE FUNDING PERIODS (Years)			4th Quarter
		1st Quarter	2nd Quarter	3rd Quarter	
13. Federal	\$ 0.00	\$	\$	\$	\$
14. Non-Federal	0.00				
15. TOTAL (sum of lines 13 and 14)	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00

SECTION E - BUDGET ESTIMATES OF FEDERAL FUNDS NEEDED FOR BALANCE OF THE PROJECT					
(a) Grant Program	FUTURE FUNDING PERIODS (Years)				
	(b) First	(c) Second	(d) Third	(e) Fourth	
16. SBDD	\$	\$	\$	\$	\$
17.					
18.					
19.					
20. TOTAL (sum of lines 16-19)	\$	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00

SECTION F - OTHER BUDGET INFORMATION	
21. Direct Charges:	
\$7,554,578.00	22. Indirect Charges:
	\$0.00

23. Remarks: Applicant is not requesting any indirect charges, although sub-recipients have included those costs in their budgets.

## ASSURANCES - NON-CONSTRUCTION PROGRAMS

Public reporting burden for this collection of information is estimated to average 15 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0040), Washington, DC 20503.

**PLEASE DO NOT RETURN YOUR COMPLETED FORM TO THE OFFICE OF MANAGEMENT AND BUDGET. SEND IT TO THE ADDRESS PROVIDED BY THE SPONSORING AGENCY.**


**NOTE:** Certain of these assurances may not be applicable to your project or program. If you have questions, please contact the awarding agency. Further, certain Federal awarding agencies may require applicants to certify to additional assurances. If such is the case, you will be notified.

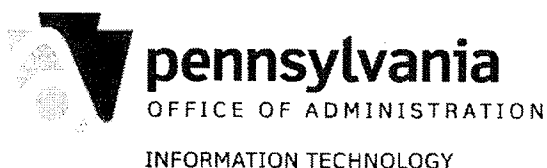
As the duly authorized representative of the applicant, I certify that the applicant:

1. Has the legal authority to apply for Federal assistance and the institutional, managerial and financial capability (including funds sufficient to pay the non-Federal share of project cost) to ensure proper planning, management and completion of the project described in this application.
2. Will give the awarding agency, the Comptroller General of the United States and, if appropriate, the State, through any authorized representative, access to and the right to examine all records, books, papers, or documents related to the award; and will establish a proper accounting system in accordance with generally accepted accounting standards or agency directives.
3. Will establish safeguards to prohibit employees from using their positions for a purpose that constitutes or presents the appearance of personal or organizational conflict of interest, or personal gain.
4. Will initiate and complete the work within the applicable time frame after receipt of approval of the awarding agency.
5. Will comply with the Intergovernmental Personnel Act of 1970 (42 U.S.C. §§4728-4763) relating to prescribed standards for merit systems for programs funded under one of the 19 statutes or regulations specified in Appendix A of OPM's Standards for a Merit System of Personnel Administration (5 C.F.R. 900, Subpart F).
6. Will comply with all Federal statutes relating to nondiscrimination. These include but are not limited to: (a) Title VI of the Civil Rights Act of 1964 (P.L. 88-352) which prohibits discrimination on the basis of race, color or national origin; (b) Title IX of the Education Amendments of 1972, as amended (20 U.S.C. §§1681-1683, and 1685-1686), which prohibits discrimination on the basis of sex; (c) Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. §794), which prohibits discrimination on the basis of handicaps; (d) the Age Discrimination Act of 1975, as amended (42 U.S.C. §§6101-6107), which prohibits discrimination on the basis of age; (e) the Drug Abuse Office and Treatment Act of 1972 (P.L. 92-255), as amended, relating to nondiscrimination on the basis of drug abuse; (f) the Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act of 1970 (P.L. 91-616), as amended, relating to nondiscrimination on the basis of alcohol abuse or alcoholism; (g) §§523 and 527 of the Public Health Service Act of 1912 (42 U.S.C. §§290 dd-3 and 290 ee-3), as amended, relating to confidentiality of alcohol and drug abuse patient records; (h) Title VIII of the Civil Rights Act of 1968 (42 U.S.C. §§3601 et seq.), as amended, relating to nondiscrimination in the sale, rental or financing of housing; (i) any other nondiscrimination provisions in the specific statute(s) under which application for Federal assistance is being made; and, (j) the requirements of any other nondiscrimination statute(s) which may apply to the application.
7. Will comply, or has already complied, with the requirements of Titles II and III of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (P.L. 91-646) which provide for fair and equitable treatment of persons displaced or whose property is acquired as a result of Federal or federally-assisted programs. These requirements apply to all interests in real property acquired for project purposes regardless of Federal participation in purchases.
8. Will comply, as applicable, with provisions of the Hatch Act (5 U.S.C. §§1501-1508 and 7324-7328) which limit the political activities of employees whose principal employment activities are funded in whole or in part with Federal funds.



9. Will comply, as applicable, with the provisions of the Davis-Bacon Act (40 U.S.C. §§276a to 276a-7), the Copeland Act (40 U.S.C. §276c and 18 U.S.C. §874), and the Contract Work Hours and Safety Standards Act (40 U.S.C. §§327-333), regarding labor standards for federally-assisted construction subagreements.
10. Will comply, if applicable, with flood insurance purchase requirements of Section 102(a) of the Flood Disaster Protection Act of 1973 (P.L. 93-234) which requires recipients in a special flood hazard area to participate in the program and to purchase flood insurance if the total cost of insurable construction and acquisition is \$10,000 or more.
11. Will comply with environmental standards which may be prescribed pursuant to the following: (a) institution of environmental quality control measures under the National Environmental Policy Act of 1969 (P.L. 91-190) and Executive Order (EO) 11514; (b) notification of violating facilities pursuant to EO 11738; (c) protection of wetlands pursuant to EO 11990; (d) evaluation of flood hazards in floodplains in accordance with EO 11988; (e) assurance of project consistency with the approved State management program developed under the Coastal Zone Management Act of 1972 (16 U.S.C. §§1451 et seq.); (f) conformity of Federal actions to State (Clean Air) Implementation Plans under Section 176(c) of the Clean Air Act of 1955, as amended (42 U.S.C. §§7401 et seq.); (g) protection of underground sources of drinking water under the Safe Drinking Water Act of 1974, as amended (P.L. 93-523); and, (h) protection of endangered species under the Endangered Species Act of 1973, as amended (P.L. 93-205).
12. Will comply with the Wild and Scenic Rivers Act of 1968 (16 U.S.C. §§1271 et seq.) related to protecting components or potential components of the national wild and scenic rivers system.
13. Will assist the awarding agency in assuring compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. §470), EO 11593 (identification and protection of historic properties), and the Archaeological and Historic Preservation Act of 1974 (16 U.S.C. §§469a-1 et seq.).
14. Will comply with P.L. 93-348 regarding the protection of human subjects involved in research, development, and related activities supported by this award of assistance.
15. Will comply with the Laboratory Animal Welfare Act of 1966 (P.L. 89-544, as amended, 7 U.S.C. §§2131 et seq.) pertaining to the care, handling, and treatment of warm blooded animals held for research, teaching, or other activities supported by this award of assistance.
16. Will comply with the Lead-Based Paint Poisoning Prevention Act (42 U.S.C. §§4801 et seq.) which prohibits the use of lead-based paint in construction or rehabilitation of residence structures.
17. Will cause to be performed the required financial and compliance audits in accordance with the Single Audit Act Amendments of 1996 and OMB Circular No. A-133, "Audits of States, Local Governments, and Non-Profit Organizations."
18. Will comply with all applicable requirements of all other Federal laws, executive orders, regulations, and policies governing this program.

<p>* SIGNATURE OF AUTHORIZED CERTIFYING OFFICIAL</p> 	<p>* TITLE</p> <p>Deputy Secretary for Information Technology</p>
<p>* APPLICANT ORGANIZATION</p> <p>Executive Office of the Commonwealth of Pennsylvania</p>	<p>* DATE SUBMITTED</p> <p>07/01/2010</p>



July 1, 2010

Anne W. Neville, Program Director  
State Broadband Data and Development Grant Program  
National Telecommunications and Information Administration  
U.S. Department of Commerce  
1401 Constitution Avenue NW, Room 4716  
Washington, DC, 20230

Re: Amended and Supplemental SBDD Application Submittal

Dear Ms. Neville:

On behalf of the Commonwealth of Pennsylvania, I am pleased to submit an Amended and Supplemental application under the State Broadband Data and Development Grant (SBDD) program in support of eligible activities that will advance the joint goals of the American Recovery and Reinvestment Act of 2009 (ARRA) and the Broadband Data Improvement Act (BDIA).

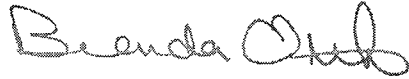
This request will allow the Commonwealth to:

- Sustain the broadband data collection and mapping effort over the five-year cycle of the program. We are proud of our accomplishments under this initiative. The current provider participation rate of approximately 70 percent in Pennsylvania's mapping project may very well serve as the high-water mark among states;
- Advance the goals and objectives embodied in the state Broadband Plan;
- Align with state priorities and objectives insofar as they relate to mapping and statewide broadband planning and coordination; and
- Develop and sustain capacity at the state level to build upon our accomplishments.

As you conduct your review of the application submitted herein, if you have any questions or require clarification or additional information, please do not hesitate to contact our Director of Broadband Initiatives, Luc M. Miron at 717-705-5462 or [lmiron@state.pa.us](mailto:lmiron@state.pa.us)

Thanks in advance for your consideration of our funding request.

Sincerely,

A handwritten signature in black ink that reads "Brenda Orth". The signature is written in a cursive style with a large, looped initial "B".

Brenda S. Orth  
Deputy Secretary for Information Technology

Attachments

Cc: Luc M. Miron, OA  
Sue Suleski, DCED

**Current Funding:** \$2,245,673 (broadband mapping: \$1,745,673; planning/collaboration \$500,000)

**Approved Activities:** The Commonwealth of Pennsylvania is collecting comprehensive data on the availability, type, and speed of broadband service by provider down to the street address, street segment, or census block in accordance with the SBDD program standards, as well as a listing of community anchor institutions with details on the broadband connectivity in use at those locations. The data collected is verified through a variety of means, including but not limited to: provider feedback, state data, third party data sources, web crawling technology, field verification, and stakeholder input. This data is updated semi-annually and transmitted to NTIA for use in creating a national broadband map. Ultimately, this information is displayed on the state's broadband coverage map, an interactive and searchable tool that makes the broadband data collected available for public consumption without unduly compromising confidential provider information. This project also includes a planning and collaboration component aimed at encouraging broadband adoption by select constituents and more vulnerable communities through implementation of the state broadband plan, inter-agency coordination, regional collaboration, awareness workshops and educational sessions, and engagement of various stakeholders. The first phase of this component involves a statewide Broadband Summit to be held in September 2010.

**Supplemental Funding Request:** \$5,947,628

**Proposed Activities:** In support of its comprehensive State Broadband Plan, the Commonwealth of Pennsylvania is seeking funding for the following four projects.

- **\$2,059,894: Broadband Data Collection, Integration, Verification, and Display (Years 2, 3, 4 and 5) -** This project involves the continuation of Pennsylvania's current broadband mapping program for three additional years as a means to accomplish the parallel goals of the SBDD program and state Act 183 of 2004 relative to maintaining an inventory of broadband service availability. In addition, the project will incorporate leading practices beginning in Year 2 to enhance provider and community anchor institution participation, streamline data processing, and transition the platform from the consultant back to the Commonwealth prior to the expiry of the 5-year funding cycle.
- **\$1,091,283: State Broadband Capacity Building (Years 2, 3, 4 and 5) -** This project supports three key positions in the Governor's Office of Administration and Department of Community and Economic Development, 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 through December 2014, while building capacity at the state level and coordinating the state Broadband Plan. In addition, this project supports the cost of physically transitioning the mapping platform from consultant to the state during Years 4-5.
- **\$1,751,451: Technical Assistance (Years 2, 3, 4 and 5) -** This project involves the delivery of a statewide outreach, training, and technical, and implementation assistance program targeting community anchor institutions, local governments, first responders, small businesses. By focusing on institutional users, this project will build capacity locally and stimulate job creation.
- **\$1,045,000: Regional/Local Technology Planning Teams (Years 2, 3, 4, and 5)**  
Description: This project builds upon the work to be carried out under the existing planning and collaboration component. It involves the engagement of one or more consultants to perform broadband cost modeling and to ascertain, measure and track barriers to adoption in Pennsylvania through an outreach and communication campaign; data collection, analysis, measurement and benchmarking; development of a statewide broadband adoption Plan; stakeholder engagement, and tracking progress and impact. This project will also support a statewide research and benchmarking effort of the availability and contribution of broadband internet telecommunications to the PA manufacturing sector by evaluating its impact on growth and productivity.

**Overall Federal SBDD Funding Request (Years 1-5):** \$8,193,301

Attached separately (filename: PA\_Supplemental\_424\_Forms.pdf) are the following budget documents:

- Revised SF424 Forms
  - SF-424
  - SF424-A (Sections A, B, C, F)
  - SF-424B

Attached separately is a spreadsheet (filename: **PA\_Supplemental\_Detailed Budget\_Budget Narrative.xls**), which includes the following eight (8) budget tabs:

- Summary Budgets
- Request (Fed) (ALL)
- Request (Fed) (Data Collection)
- Request (Fed) (Capacity Build)
- Request (Fed) (Tech Assistance)
- Request (Fed) (Regional Teams)
- Budget (Match)
- Budget Narrative-Justification

This spreadsheet separates all costs into the budget categories on the SF-424. The project cost information contained in this spreadsheet is divided by year, and for each category, and clearly articulates the matching funds and the federal costs.

**NAME: Data Collection, Integration, Verification, and Display.** This project involves the continuation of Pennsylvania’s current broadband mapping program for three additional years through December 2014 as a means of accomplishing the parallel goals of the SBDD program and state mandate of to maintain an inventory of broadband service availability.

Current Funding Award for This Purpose (Years 1-2)	\$1,745,673
Supplemental Funding Request for This Purpose (Years 2-5)	\$2,059,894
<b>Total Funding Request</b>	<b>\$3,805,567</b>

**CURRENTLY FUNDED ACTIVITIES:** The Pennsylvania Department of Community and Economic Development, in coordination with the Governor’s Office of Administration, is utilizing the previously awarded SBDD funds to develop a statewide map of broadband service availability and use based upon data collected from broadband providers and community anchor institutions. Specific activities over the funded two-year period include: outreach, data collection, verification and analysis; website and mapping application development; and semi-annual maintenance updates and reporting through December 2011. An outreach strategy was developed to encourage broadband service providers to participate in the mapping effort and to provide information regarding their service capability and coverage areas to the specified-NOFA and clarification granularity. This provider data was collected into a geographic database (geodatabase) and multiple techniques were used to validate the data. Validation datasets were acquired and created from commercial and public sources, as well as field surveys. A web-based broadband mapping application is currently under development for use by the public to: find broadband availability details and connect with providers in their areas; visualize, query, and print coverage and provider information; visualize, query and print technology types and speed of coverage; visualize community anchor points; and solicit public feedback regarding broadband reported coverage in their area. Semi-annual data maintenance involves ongoing data acquisition, aggregation, and validation processes, culminating in the delivery of updated data sets to NTIA each September and March through 2011. Wherever possible, data-loading processes and reporting functions have been automated to facilitate efficient data updates over the current term of the project.

**PROPOSED ACTIVITIES:** The Commonwealth of Pennsylvania is requesting supplemental SBDD grant funding to support the continuation of its broadband data update activities, including data collection, integration, and validation, along with the implementation of some Enhancements and Leading Practices during Years 2-5 of the SBDD program. The following narrative describes the proposed methodologies for data gathering, integration and validation going forward.

**Data Gathering Methodology:**

- **ONGOING EFFORTS FOR REPEATED DATA UPDATING**
  - The data gathering methodologies proposed and deployed for the initial two-year grant term will continue.
  - Address level data – wherever possible, Pennsylvania is obtaining from Providers address level data versus road segment or census block.
  - These methodologies will continue to be utilized for the semi-annual updates through Year 5 and will be supplemented with the following proposed Enhancements and Leading Practices.
- **ENHANCEMENTS**
  - **Provider Submission Portal** – The state will develop and deploy in Year 2 a secure web-based application tool for Providers to simplify and automate the semi-annual data collection and verification process. This interface is of high priority as it will improve Provider participation and the data updating process, while simplifying and automating the semi-annual data collection process for collecting and verifying data by including: a connection to an automated broadband

data collection/updating process; provide a series of data fields with multiple choice answers, along with an easy-to-use mapping tool for detailing a Provider's service area; automatic email notifications for upcoming data update reminders; real-time provider data update tracking and reporting to the program/project management team; and online provider outreach "forum" for soliciting ideas and fielding comments. By simplifying and automating the communication and data collection process, this portal is expected to improve in the timeliness of Provider response, increase consistency across data sets, facilitate a Provider feedback loop, and build a platform to sustain ongoing data collection by the state following cessation of federal funding for this project.

- **Propagation Map/Wireless Coverage Generation** – For wireless providers who have not submitted data or have refused to participate (currently 24 wireless providers), the state proposes to develop propagation models for up to 18 Providers from public source information and associated field surveys for wireless coverage areas and speed tiers.
- **Enhanced Community Anchor Institution Outreach** – Our original proposal envisioned that data on community anchor institution connectivity would be more easily obtained from Providers servicing those facilities. This was not the case and led us to implement an online survey tool targeting high priority community anchors and/or leverage and crosswalk data from other sources. While response to our online outreach was high (50%), it is clear that additional outreach directly to community anchor institutions directly, via state agency, and regional partners in addition to the online survey mechanism is required to acquire and transmit to NTIA more complete data over Years 2-5.
- **Enhanced Outreach and Technical Assistance to Small Providers** – We will provide continued support for small broadband service providers to submit data for the Broadband Mapping semi-annual updates. We intend to provide on-line data tools through the Provider Data Updating Program to assist the small providers who may not have GIS software. In addition, we will provide periodic webinar training sessions to assist with the use of the tools. Additional outreach measure such as face-to-face meetings directly with the Providers is also envisioned to emphasize the importance of the program and supplying complete data.
- **Middle-Mile Inventory Improvement** – Although the delivery of middle-mile infrastructure data by the providers in Pennsylvania was above average, additional outreach is necessary to complete the middle-mile inventory. Face-to-face meetings with the negligent Providers are envisioned to communicate our seriousness in keeping their middle-mile infrastructure confidential to the public and involving them in the success of the overall national broadband program.
- **LEADING PRACTICES**
  - **Wi-Fi Hot Spot Mapping** – To enhance the public mapping website, the state will acquire and publish Wi-Fi hot spot locations within Pennsylvania. Web scraping of the latest Wi-Fi hot spot within the Commonwealth will be performed as well as mechanisms for self-reporting of locations will be implemented. Where possible, the project will engage interns to assist in this research.
  - **Inclusion of Resellers**– Outreach to broadband resellers will be performed and their supplied data will be aggregated into the geodatabase compatible with the latest NSGIC model. In addition, the participating broadband reseller information will be published on the public mapping website.
  - **Typical Speed** - One of the deficiencies in the data from the Providers and in the initial submittals to the NTIA is the typical speed. Typical speed will be gathered from speed test results reported from the FCC speed test results as well as other speed test results from our on-line surveys to Community Anchor Institutions as well as the public webpage.



**Processes for Data Integration:** We envision that not all of the Providers will welcome change and will likely submit their updated broadband information the same way that they originally supplied it. As such, the original data integration methodologies will continue with enhancements toward automation.

- ONGOING EFFORTS
  - The data integration methodologies proposed and deployed for the initial two-year grant term will continue.
- ENHANCEMENTS
  - **Provider Submission Portal** – As discussed above, we propose the development and deployment in Year 2 of a secure web-based application tool for Providers to simplify and automate the semi-annual data collection and verification process. Standardizing the submission of data by Providers will foster better data integration for the update cycles rather than receiving various information and disparate formats from the Providers.
- LEADING PRACTICES
  - **Speed Geography** - Speed at Census Blocks – Through the data updating cycle, the state will work with the NTIA and Providers to collect the broadband speed data at the census block level. In addition, the FCC speed test results and Form 477 information will be utilized as an additional source for validation of provider data and the speed at the census block level.

**Verification Methodology:**

- ONGOING EFFORTS
  - The verification methodologies proposed and deployed for the initial two-year grant term will continue. These sources include: Telogical Systems (Wireline) and American Roamer (Wireless) Market Intelligence Data, Commonwealth acquired data, Field Data Acquisition, Provider feedback, and Stakeholder input.
  - These methodologies will continue to be utilized for the semi-annual updates through Year 5 and will be supplemented with the following proposed Enhancements and Leading Practices.
- ENHANCEMENTS
  - **Integration of Public Data Sources:** Additional public information such as the FCC speed test results and the Form 477 data will supplement our previous verification methodologies.
  - **Data Confidence Scale:** In addition, statistical modeling will be performed to report an overall confidence evaluation rating of each provider and the validity of the supplied dataset. The PA Broadband Mapping Team will perform continual evaluation and incorporation of independent broadband coverage datasets into the provider broadband data validation process to refine confidence evaluation ratings for statistical modeling and to improve the accuracy of provider data. We intend to perform statistical analysis by using the SAS software which will be fed information from a custom software application which compares the Provider information at each census block or road segment level against each of the validation datasets. An overall confidence evaluation rating will be assigned to each provider as to the statistical validity of the supplied dataset and communicated through the Provider feedback loop.
- LEADING PRACTICES
  - **Data Quality Feedback Loop with Providers**– With each semi-annual update, aggregated data will be distributed to the providers for verification and approval of their updated information. In addition, validation results will be supplied to providers for feedback on service area, technology and speed.

NTIA invited states to suggest other areas of relevant activity (beyond what is represented in the grant guidance). Accordingly, Pennsylvania proposes the following:

**Display/Data Sharing Methodology/Program Continuity:**

- **ONGOING EFFORTS**
  - The display and data sharing methodologies proposed and deployed for the initial two-year grant term will continue.
  - The State is not proposing any changes to how it will provide non-confidential data to the public or keep confidential data secure.
- **ENHANCEMENTS**
  - **Connecting Consumers and Providers** – Recognizing the value of the resulting state broadband map as a one-stop-shop for consumers to identify connectivity options and connect with participating Providers and Resellers in their area that can meet their broadband service needs, Pennsylvania will enhance its state map to highlight and link to the websites of those Providers that have fully cooperated with the project. As such, the project will compile the urls and other relevant contact details on Providers and these attributes will be added to the database for display on the public interface. Pennsylvania will also explore options to enhance the value proposition of this map to the Provider community as a marketplace to connect them with potential customers, recognizing that increased consumer visibility with the potential to impact their bottom line may help foster greater participation and create incentive to collaborate.
  - **Secure Portal** – Recognizing that broadband data collected is most powerful as an economic development and planning tool when viewed and analyzed in context, Pennsylvania will build out a secure version of its public broadband map to include additional relevant data layers (demographic, business, user specific). This interface will be accessible by various state agencies, along with select internal and external partners. Permissions will ensure the confidentiality of the data. Data layers required under NOFA Technical Appendix A, as amended, will remain publicly displayed.
  - **Mobile Device Accessibility** – Enhancements to the public mapping website will be developed so the information is viewable on mobile devices such as the iPhone, Blackberry, Droid, and any future mainstream mobile devices. This forward-looking enhancement will aid in the overall visibility of the broadband adoption and usage within Pennsylvania.
  - **Next Generation Website Technology** – Inevitably, over the next four years, web-based mapping application technology will be enhanced and the state proposes to establish a budget for future upgrades to the mapping website to ensure that the user experience is always contemporaneous and current.
  - **Knowledge Transfer to State** - The project includes a component to transition the systems, processes, and knowledge from the consultant to the state during Years 4-5, so that the data collection and update process can be institutionalized and brought completely “in house” prior to expiry of the program cycle. The state will procure the necessary servers, software, and other associated items to facilitate this transition under the State Capacity Building project accompanying this application. The consultant contract includes personnel time sufficient to ensure adequate knowledge transfer.
- **LEADING PRACTICES**
  - **Method of Submission** – The State commits to submit its semi-annual updates via the geodatabase that has been jointly developed by many awardees as well as other state GIS professionals. As further requested by the NTIA, the PA Broadband Mapping Team will submit the delivery submittals in the geodatabase format and continuously migrate existing broadband mapping to the adopted NSGIC data model that is forthcoming and future versions of it.

**Future Leading Practices:** Pennsylvania proposes to dedicate 5% of this project’s supplemental budget is to be dedicated to the implementation of Leading Practices for Years 2-5, as identified and agreed upon by the State and the Program Office.

**NAME: State Capacity Building.** This project supports key personnel at the state-level to ensure the successful direction, implementation, and monitoring of the state’s SBDD activities, as well as the transition costs related to transferring the hosting of the mapping program from the consultant to the state.

Current Funding Award for This Purpose (Years 1-2)	\$ 0
Supplemental Funding Request for This Purpose (Years 2-5)	\$1,091,283
<b>Total Funding Request</b>	<b>\$1,091,283</b>

**PROBLEM:**

Responsibility for managing and coordinating broadband-related activities is currently dispersed among several agencies, without dedicated staff to ensure coordination of activities between them. This fragmentation has diminished somewhat since the award of broadband mapping and planning funds, however responsibilities are still spread among limited staff, who are often tasked with other responsibilities, which has the potential to lead to insufficient resources allocated to leading the state’s broadband strategy. Currently, due to state budget limitations and deficits, the state is currently financially unable to fill this need of supporting a dedicated team of personnel to coordinate the state’s broadband efforts and implement its state broadband plan, and looks to leverage SBDD funding to build capacity and formalize broadband management and coordination activities within the state. The addition of staff members is vital for succession planning also if institutionalization of the program and knowledge is one of the desired outcomes.

**SOLUTION:**

As a means of building capacity and institutionalizing the broadband programs seeded by the SBDD program, Pennsylvania seeks funding to support the following broadband team members:

- **KEY BROADBAND PERSONNEL** – Supplemental SBDD grant funding is requested to support three key positions at the state, whose dedicated time to this effort is essential to ensure the successful direction, implementation, and monitoring of the state’s SBDD broadband data collection, mapping, and other program purposes in coordination with the State Broadband Plan through December 2014, while building capacity and institutionalizing knowledge at the state level to continue these efforts following the eventual lapse of federal funding.

***Director of Broadband Initiatives*** - existing

1 FTE over Years 3-5

This position resides in the PA Department of Community & Economic Development (DCED) and is currently integral to the oversight and coordination of the broadband mapping components of this project and coordination of state broadband initiatives required under state Act 183 of 2004. Years 1-2 of this position were supported through the initial broadband mapping award and this dedicated resource has been critical in ensuring the successful rollout of that project and coordination with other state and federal broadband programs. This role will expand in Years 2-5 to include oversight of broadband mapping, technical assistance, and regional/local technology planning team components. This is a highly responsible professional position involving administrative and programmatic work focused on broadband programs and other technology initiatives. This position reports directly to the state DCED Deputy Secretary for Technology Investment. Responsibilities include:

- Planning, directing, and coordinating all activities related to DCED participation in state and federal broadband programs.

- Providing day-to-day management and oversight of the broadband mapping project through Year 5 and will facilitate the transition of the broadband mapping program in-house.
- Administering the Broadband Mapping, Technical Assistance, and Regional/Local Technology Planning Team components of this proposal, which will involve the issuance of Requests for Proposal, executing associated contracts and subgrants, managing vendor and subgrantee relationships, monitoring performance, and facilitating reporting.
- Collaborating with the Director of Broadband Stimulus Programs on the Planning and Collaboration and other State Capacity Building components of this proposal
- Ensuring coordination of all stimulus efforts with the state's Act 183 of 2004 programs and supporting execution of the State Broadband Plan.

***Broadband Initiatives Program Analyst - new***

1 FTE over Years 2-5

This position resides in the PA Department of Community & Economic Development (DCED) and will be integral to the successful day-to-day administration of the broadband mapping, technical assistance, and regional/local technology planning team components of this proposal, along with coordination with other state and federal broadband programs. This is a highly responsible program management position involving administrative and programmatic work focused on broadband programs and other technology initiatives. This position reports directly to the Director of Broadband Initiatives. Responsibilities include:

- Assisting the Director of Broadband Initiatives related to implementation of the broadband mapping, technical assistance, and regional/local planning team components.
- Overseeing the timely executing of vendor/consultant solicitations, contracts, interagency transfers/MOUs, processing of invoices, etc.)
- Ensuring compliance with all state and federal monitoring, reporting, and record-keeping requirements (e.g. 1512 reporting, programmatic reporting, SF425 reporting, state performance measures, disadvantaged business participation tracking, documenting and maintaining monitor plans).
- Overseeing the collection of data, measurements, benchmarking and monitoring progress and metrics collected as part of the Technical Assistance and Regional Planning teams.
- Ensuring coordination of all stimulus efforts with the state's Act 183 of 2004 programs Assisting the Director of Broadband Stimulus Programs and the Broadband Stimulus Programs Outreach Consultant at DCED as needed in the day-to-day management and implementation of the SBDD planning and collaboration components

***Broadband Stimulus Outreach Consultant - new***

This position will reside in the Governor's Office of Administration (OA) and will be integral to the successful day-to-day administration of the planning and collaboration, and state capacity building components of the state's SBDD award, along with coordination with other state and federal broadband programs. This is a highly responsible outreach and program management position involving administrative and programmatic work focused on broadband programs and other technology initiatives. This position reports directly to OA's Director of Broadband Stimulus Programs. Responsibilities include:

- Assisting OA's Director of Broadband Stimulus Programs related to implementation of the planning and collaboration, and state capacity building components.
- Overseeing the timely executing of vendor/consultant solicitations, contracts, interagency transfers/MOUs, processing of invoices, etc.)

- Promoting transparency by facilitating the timely release of information on broadband stimulus program developments and progress (e.g. preparing content for distribution, web publication, newsletters, e-alerts, op-eds, annual reports, website maintenance, coordinate meetings, event and town halls, etc.).
  - Serve as liaison with other Commonwealth agencies involved in broadband and their respective constituencies
  - Ensuring coordination of all SBDD efforts with the other broadband stimulus program efforts (e.g. BTOP) and supporting execution of the State Broadband Plan.
  - Assisting the Director of Broadband Initiatives and the Broadband Initiatives Program Analyst at OA as needed in the day-to-day management and implementation of the SBDD planning and collaboration components
- **BROADBAND MAPPING TRANSITION COSTS** – Funding is requested to support the costs associated with physically transferring hosting of the mapping program from its consultant to the state during Years 4-5. These costs, detailed in the budget narrative, include: hardware, software, and support services associated items required to outfit the state to host and maintain the system going forward. Costs associated with knowledge transfer by the consultant are built into the Data Collection, Integration, Verification, and Display proposal.

**OUTCOMES AND BENEFITS:**

This project supports key personnel at the state to ensure the successful direction, implementation, and monitoring of the state's SBDD broadband data collection, mapping, planning, collaboration, and other program purposes through December 2014 and ensure coordination with the State Broadband Plan, while building capacity and institutionalizing knowledge at the state level to sustain this work following federal funding.

This funding will ensure the successful implementation of all SBDD-supported projects within Pennsylvania and ensure proactive coordination with other state and federal programs.

**COST:** The federal cost of the proposed project consists of salaries for the three positions listed above. The Governor's Office of Administration (OA) will match this grant through dedication of the personnel costs of the Director of Broadband Stimulus Programs, whose salary and benefits and operating costs are paid out of a state general appropriation. Additional costs charged to the grant are associated with the physical transition of the broadband mapping platform from consultant to state agency. The costs associated with this proposed project are reasonable, allocable, and necessary, and are not able to be supported through other means.

**SBDD PURPOSE:** This project aligns with and addresses SBDD Purposes 1-8, as this project directs, oversees, coordinates, and monitors all activities related to execution of the SBDD funding, including data collection, planning and collaboration, technical assistance, and regional/local technology planning teams. This central and coordinated function is a critical government activity to ensure successful and responsible execution of the SBDD program mission in parallel with the state's comprehensive broadband plan.

