OMB Number: 4040-0004
Expiration Date: 01/31/2009

Application for Federal Assistance SF-424 Version 02

*1. Type of Submission:	*2. Type of Application	* If Revision, select appropriate letter(s)
☐ Preapplication	☐ New	A. Increase Award C. Increase Duration
☒ Application	☐ Continuation	*Other (Specify)
☐ Changed/Corrected Application	☒ Revision	

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):	*c. Organizational DUNS:
23-6003107	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:	Division Name:
Executive Office	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

OMB Number: 4040-0004
Expiration Date: 01/31/2009

Application for Federal Assistance SF-424 Version 02

***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

OMB Number: 4040-0004
Expiration Date: 01/31/2009

Application for Federal Assistance SF-424 -- Version 02

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	1,606,949
*d. Local	
*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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Prescribed by OMB Circular A-102

Application for Federal Assistance SF-424 Version 02

***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

OMB Approval No. 0348-0044

SECTION A - BUDGET SUMMARY

Grant Program Function or Activity (a)	Catalog of Federal Domestic Assistance Number (b)	Estimated Unobligated Funds		New or Revised Budget		
		Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)	Total (g)
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

6. Object Class Categories	GRANT PROGRAM, FUNCTION OR ACTIVITY				Total
	(1) Federal	(2) Non-Federal	(3)		(5)
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	0.00	0.00	7,554,578.00
j. Indirect Charges					0.00
k. TOTALS *(sum of 6i and 6j)*	$ 5,947,628.00	$ 1,606,950.00	$ 0.00	$ 0.00	$ 7,554,578.00
7. Program Income	$	$	$	$	$ 0.00

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Prescribed by OMB Circular A-102

Previous Edition Usable

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)*	$ 0.00	$ 1,606,949.00	$ 0.00	$ 1,606,949.00

SECTION D - FORECASTED CASH NEEDS

	Total for 1st Year	1st Quarter	2nd Quarter	3rd Quarter	4th 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.

OMB Approval No. 4040-0007
Expiration Date 04/30/2008

ASSURANCES - NON-CONSTRUCTION PROGRAMS

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.

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

Standard Form 424B (Rev. 7-97) Back

pennsylvania
OFFICE OF ADMINISTRATION

INFORMATION TECHNOLOGY

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).

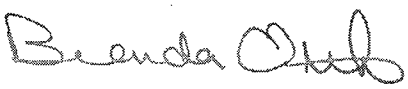
This request will allow the Commonwealth to:

- 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

Thanks in advance for your consideration of our funding request.

Sincerely,



Brenda S. Orth
Deputy Secretary for Information Technology

Attachments

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

PROJECT ABSTRACT

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

DETAILED BUDGET & BUDGET NARRATIVE

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
Total Funding Request	**$3,805,567**

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 thisproject.

- **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.

PROJECT NARRATIVE # 2 - State Capacity Building

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
Total Funding Request	$1,091,283

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 hasdiminshed 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 tof 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 o f 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.

NAME: Technical Assistance. This project involves the delivery of a statewide outreach, training, and technical assistance program targeting community anchor institutions, local governments, first responders, small businesses, schools, and libraries. By focusing on institutional users, this project will build capacity and access locally and stimulate job creation.

Current Funding Award for This Purpose (Years 1-2)	$ 0
Supplemental Funding Request for This Purpose (Years 2-5)	$1,751,451
Total Funding Request	$1,751,451

PROBLEM: Broadband access is a critical infrastructure that facilitates access to distance-learning opportunities, business to consumer, and business to business communication on the Internet that is not available through dial-up connections, resulting in improvement of education, health care, business and first-responder opportunities. While 92% of Americans have the ability to use broadband services, the "adoption rate" in rural PA has traditionally and relatively been low (10 to 50%). Industry experts believe that the "'build it and they will come' theory does not translate well in the rural broadband environment. A study showed the reason for low adoption is two-fold: cost and lack of knowledge of the economic benefits. The study also showed that non-broadband entities want to learn more about the benefits of broadband to help their organization sustain business and/or grow. Experts have urged the Commonwealth to allocate resources to "provide assistance to entities in subscribing to and utilizing advanced broadband networks." With 25 to 28% of Pennsylvanians in rural areas, the Commonwealth's Technical Assistance solution presents an unprecedented opportunity to expand access, increase knowledge, and offer financial support to local governments, anchor institutions, non-profits, first responders, small businesses, schools, and libraries and to close the digital divide that exists.

SOLUTION: The solution to the problem in Pennsylvania is a two-prong approach to provide much needed technical assistance to several organizations that do not have the knowledge or technical qualifications to adopt, implement, and sustain broadband solutions. "KickStart Technical Assistance" will provide technical assistance to kickstart local governments, anchor institutions, non-profits, first responders, small businesses, schools and libraries. "Broadband Step-Up" will provide in-depth and robust technical assistance to help the neediest organizations to adopt, sustain and grow through broadband implementation.

The "KickStart Technical Assistance" program will be overseen by the Pennsylvania Department of Community and Economic Development and will be implemented by a broad partnership of proven community and economic development partners including, but not limited to, the Local Development District (LDD) Network, the Pennsylvania Technical Assistance Program (PennTAP) at Penn State University, and the Pennsylvania Industrial Resource (IRC) Network. This project includes the following components:

- **Awareness/Training:** To foster awareness of broadband and its benefits, the state will work with local community and economic development organizations that know their local communities best. The project will partner with these organizations to utilize their existing constituent marketing channels to dispense information, coordinate events, and promote resources activities associated with this project. Experience shows that this "feet on the street" approach is the most effective way to have a high percentage of success. Activities will include:
    - Identifying priority communities, local governments, non-profits, anchor institutions, first responders, small businesses, schools and libraries.
    - Developing, promoting, and conducting outreach seminars on the value of broadband to drive the aggregate potential and increase the sustained use of broadband solutions.

- **Technical Assistance:** The state will work with proven technical assistance providers to provide direct one-on-one consulting and webinars to assist local governments, non-profits, anchor institutions, first responders, small businesses, libraries, and schools who are ready to adopt broadband or expand their usage. The assistance will focus on the specific need of the client and the solutions that will make them more competitive, thereby removing the fears and inaction that inadequate knowledge creates and increasing adoption/implementation of broadband solutions. Activities will include:
    - Provide technical assistance to users poised to use broadband or broadband solutions, via one-on-one engagements.
    - Assistance will be customized to the specific needs of each client. Topics may include: e-commerce and e-marketing; distributed connectivity solutions; computer and information security, disaster planning/recovery and business continuity; supply chain management opportunities; public computer center setup, etc. In addition, the technical assistance providers have expertise and experience in broadband technologies for health information systems and a high level of understanding of public safety agencies.
    - Provide Request for Proposal (RFP) technical assistance to give clients the comfort that they are not being "sold to," but rather have an objective advocate on their side who understands their specific needs and solutions.
    - Deploy 40 undergraduate student interns to assist clients with broadband solution implementations.

  After obtaining technical assistance, clients will be empowered with customized recommendations related to the implementation of broadband solutions.

Broadband Step-Up: The "Broadband Step-Up" initiative will take small businesses and organizations through a two-year intensive training, consulting and implementation program that will elevate the organization's understanding of and maximize their utilization of broadband and broadband technology solutions.

- **Awareness:** The state will utilize the existing partnership networks described earlier to promote this program. Guidelines for identifying potential clients for the program will be developed and delivered to these networks so that the program can begin quickly.
- **Training Workshops:** A critical component to assisting these organizations is to give them the knowledge to exploit broadband and broadband applications to make the organization more competitive or to enable them to serve their constituents better. The state will work with educational providers to develop and deliver a series of workshops/seminars and trainings through client-focused mediums on specific broadband topics. Education topics will cover solutions and skills that exploit the capabilities that broadband enables. The topics will be tailored in such a way so that the attendees can get a base understanding through standard trainings and "step-up" through additional elective broadband topic trainings toward a "Broadband-Enabled" Certificate. After receiving a certificate, clients will be empowered to adopt and implement broadband solutions and will be ready for related services made available though this Initiative.
- **Technical and Implementation Assistance:** The state will work with proven technical assistance providers to provide direct one-on-one consulting to assist "Broadband-Enabled" clients. The assistance will be a detailed TA effort focusing on implementation of broadband solutions for the client targeted at making the client more competitive. The following activities will include:
    - Providing Request for Proposal technical assistance to give clients the comfort that they are not being "sold to," but rather have an objective advocate on their side who understands their specific needs and solutions.

  - Serving as the client advocate through the implementation process with vendors and service providers.
  - Deploying student interns to assist clients with broadband solution implementations.
- **Implementation Assistance** - The Initiative will provide financial assistance, request for proposal assistance and access to an extensive public/private service provider network to support "Broadband Enabled" clients in implementing broadband-related solutions. All of these efforts are directed to increase access to broadband solutions for clients who do not have the ability or financial resources to take advantage of broadband. The clients, having been through the "Broadband Step-up" program through the Technical Assistance portion of this proposal, will have the knowledge on how to exploit broadband and the assistance to deliver results. This capital will enable clients to successfully deploy solution and help drive broadband demand. The financial assistance will be through the Broadband KickStart mini-grant program who have completed the "Broadband Step-up" Technical Assistance program for high-quality broadband projects. Grants may be used for equipment and services related to the implementation of broadband solutions.

OUTCOMES AND BENEFITS: The measurement of benefits is an important part of any successful initiative. The initiative will utilize post-assistance client evaluation survey process to measure impact. This straightforward process has been recognized as a best practice as it surveys both satisfaction and economic impact of the initiative directly from the client. DCED will report on the results of the initiative, as per the program reporting requirements. The goals of this project are projected to include:

- Outreach to 1,000 institutional subscribers
- Deliver training to 3,750 individuals
- Handle 400 cases of technical and/or implementation assistance with local governments, non-profits, anchor institutions, first responders and small businesses through "Kickstart Technical Assistance"
- $400,000 in implementation assistance to client projects
- 400 jobs created/retained
- 80% of cases resulting in client expenditures in technology
- $17.5 million in economic impact (includes increased/retained revenues, cost/time savings, and technology expenditures reported by clients)
- Take 40 businesses and organizations through "Broadband Step-up"
- Place 40 student interns to facilitate implementation and build intellectual capacity

COST: This project leverages the state's existing community and economic development service provider networks and proven technical assistance models. Execution of this component will involve the execution of subgrants with key partners including the Local Development District (LDD) Network, the Pennsylvania Technical Assistance Program (PennTAP) at Penn State University, the Pennsylvania Industrial Resource (IRC) Network. Matching funds are dedicated from the Broadband Outreach and Aggregation Fund (BOAF), which is administered by the PA Department of Community and Economic Development. 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 the following SBDD Program Purposes:

(2) TA efforts to be directed following identification of priority communities, sectors, and client populations in need of assistance due to lack of service or adoption issues.

(3) Project will perform outreach to identify target audience and will serve up TA to overcome barriers to adoption and implementation
(6) Project will serve as catalyst to leverage state Act 183 broadband programs to compel deployment of services to areas of demand becomes demonstrated and justified. It will bring supply/demand together by linking clients and adopters to broadband carriers and IT solutions service providers. Project will furnish resources to deploy projects that will meet this BDIA objective.
(7) Through outreach and TA offerings will address barriers to adoption and implementation; project will yield case studies, market intelligence that can be translated into best practices
(8) Outreach and TA to disseminate/exchange/seek information; promotion of state map for stakeholder verification/comment; ; link clients to broadband and IT solutions service providers

NAME: Regional/Local Technology Planning Teams. This project builds upon the work to be carried out under the current planning and collaboration component by regional planning teams. 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. The adoption component will include an outreach and communication campaign; data collection, analysis, 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 Pennsylvania manufacturing sector by evaluating its impact on growth and productivity.

Current Funding Award for This Purpose (Years 1-2)	$ 500,000
Supplemental Funding Request for This Purpose (Years 2-5)	$1,045,000
Total Funding Request	**$1,545,000**

PROBLEM:
Subject to NTIA approval, the original $500,000 planning grant is proposed to be used to achieve various Planning & Collaboration outcomes linked to:

- Implementation of elements of statewide Broadband Plan;
- Formation of regional planning teams around 10 Economic Development Districts across our state;
- Hosting of a statewide Fall Broadband Summit in September 2010 (authorization to proceed received from NTIA), the findings and conclusions of which will inform the planning process and chart the future course of activities; and
- Survey and assessment of barriers to adoption

But additional data elements and tools will be required in order to optimize the opportunity that is presented to the state under the SBDD program.

Cost Modeling - Providing broadband to unserved and underserved communities is a challenging and expensive proposition. Rural areas – particularly sparsely populated and mountainous remote areas – present formidable physical barriers to the deployment of costly broadband infrastructure. While technology solutions are readily available, broadband providers are unable or unwilling to underwrite networks and deployments in the most rural portions of Pennsylvania. While cost is usually the culprit, supply-side data is deemed by providers to be competitive and confidential, and states do not have access to information and tools that provide a perspective on what considerations – financial and otherwise – that inform business case and the determination to trigger deployment.

Adoption Measurement & Tracking - while the state can help shape and guide the regional planning process, our regional partners will undoubtedly lack the resources and expertise to put together a collective and statewide broadband adoption plan, especially one that effectively spans across various regions and across disciplines and sectors.

Manufacturing Benchmark Study - For most small to medium sized manufacturers, optimizing broadband technology and realizing the value delivered by this capability are not skills that they have in their business. Access to affordable and practical high speed internet service (at least 6 MPS) in Pennsylvania is also a challenge for SMEs to benefit from the expanding digital economy.

The small-medium manufacturing sector is increasingly challenged to compete in a global marketplace that demands more sophisticated marketing, supply chain and information management technology and broadband data capability. Companies adopting broadband-based processes improve their labor productivity on average by 15% in the manufacturing sector and by 20% in the services sector. Due to the slow adoption of broadband-based value-added services in Pennsylvania and in particular among small-medium manufacturers, the macro-economic broadband-related productivity improvement in Pennsylvania is not being realized. Assistance to this sector is of high priority to the Commonwealth of Pennsylvania.

SOLUTION:

Cost Modeling - The overlay of cost modeling information against the backdrop of comprehensive mapping representation is particularly useful for states and is the logical progression for successful broadband planning approach: identifying the coverage gaps, presenting reasons that the gaps exist, estimate the cost to deploy infrastructure, and utilization of verifiable and standardized information to determine the most appropriate solution for that community or region. Identification of costs to deploy and maintain broadband networks will be key to policy makers in determining the best course of action in high cost areas, as the state pushes for broader penetration and aims to optimize future funding opportunities. A quality cost model can "size" the issue and lead to efficient and targeted solutions for the "Supply-Side Problem."

The cost modeling component will provide for the engagement of a qualified consultant who will develop models and calculations and tools that estimate the costs of deploying and maintaining broadband services in unserved or underserved regions of Pennsylvania.

Adoption Measurement & Tracking
The objective of this work is to measure adoption by various constituencies and regions, conduct benchmarking of broadband utilization, track progress, and develop an awareness and adoption plan for use by and across the state.

The adoption component will provide for the engagement of a qualified consultant who will develop on behalf of the state a strategy and program related to measuring and tracking adoption across different strata (individual and institutional users) and across different locus (local, regional, and statewide).

The task of measuring and tracking adoption will be comprised of various elements:

- Stakeholder engagement: Stakeholder (households and businesses alike) recruitment and participation is a key element of the state's successful broadband awareness and adoption campaign. Stakeholder participation is critical to ensuring effective broadband adoption, collection of usage data for broadband planning, and cost effective impact tracking of broadband efforts

- Data Collection & Analysis: Data collection from individuals and institutions will include residential and business computer ownership, Internet use (incl. e-solution use) adoption of related technology, relevant information related to behaviors, perceptions and trends of technology use and any barriers to adoption. Associated required tasks include compilation of a contact list, survey administration, tabulation of results, statistical analysis and QA/QC processing,

- Technical Report: Involves the compilation of key findings from the research, identification of key gaps and opportunities for increasing adoption, sectoral and regional analysis, and documentation of the findings in a detailed Technical Report

- Statewide Adoption Plan: Development of a statewide broadband adoption plan for the State of Pennsylvania through a consultative process, engaging stakeholders and regional working group partners.

- Monitoring and impact tracking: Development of benchmarks and indices to be used for tracking and measurement over the latter years of the project. Data will be collected and monitored to track the continuing impacts of investments in broadband infrastructure, as well as general trends in broadband adoption.

Manufacturing Benchmark Study

This project will also support 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. These efforts will be integrated with an existing effort by DCED, the Industrial Resource Center (IRC) Network and other partners to support a *Best Practices in Manufacturing Research Project*. Through the use of this additional funding, the current research project on the state of Pennsylvania manufacturing will be able to be expanded to include analysis and recommendations that are specifically focused on manufacturer's ability to use broadband technologies to grow, create jobs and compete globally. Without this additional Broadband funding the research will not be able to drill down deeply to provide analysis on broadband technologies for small manufacturers.

OUTCOMES AND BENEFITS:

Cost modeling

Cost modeling can demonstrate disparities across regions or across technologies and present various alternatives and scenarios and means of calculating Return on Investment, meaning for example that costs could be significantly reduced by the re-use of existing telecommunications ducts or the sharing of infrastructure owned by other utilities or the use of various broadband technologies.

Adoption

Broadband technology is recognized as an essential, core piece of community infrastructure, similar to earlier deployments of basic telephone service and electrical power. Broadband access is an important part of enhancing community development, improving the economy, health care, and general quality of life of rural and remote residents. Broadband technology must be viewed as part of the normal minimum requirements one would expect to find in a community. But the mere presence and use of broadband technology by itself is not enough to result in transformations. The presence of important skills (leading to the adoption and use of broadband technology and associated applications) and attributes (leadership, vision, innovation, entrepreneurship) among users, communities and disciplines is required if transformative outcomes are to be realized

The project will allow for an assessment of whether there is a linkage or correlation between individual adoption vs institutional adoption and whether significant disparities exist statewide, or across regions or across disciplines and/or anchors.

Manufacturing Benchmark Study

There are four expected outcomes from the research being undertaken by Pennsylvania's IRC network:

- Distill the lessons learned from the state's best-in-class manufacturers. Use those lessons to improve the competitive position of manufacturing employers.
- Understand the technology base of the Commonwealth as a whole and of each of the state's regional economies. This will lead to an understanding of the direction the state's economy is heading and will be a way to accelerate positive economic change.
- Benchmark Pennsylvania's competitive position as a manufacturing state against competitor locations and suggest ways to improve that relative position.
- Document the scope of activities being undertaken by Pennsylvania's IRC network and understand their impact on the current state of Commonwealth's economy and to project its future impact.

This is a project that combines state and regional economic data with competitive insights that come from individual firms. The purpose is as ambitious; and applying the results to make changes in the competitive posture of Pennsylvania's manufactures is critical to the state's future.

COST: This project involves the engagement of one or more consultants to carry out this scope of work. Costs are based on research and preliminary estimates from potential service providers. With the exception of the Manufacturing Benchmark Study, which will be managed by the state Industrial Resource Center (IRC) Network, the components of the project will be competitively bid to solicit qualified proposals and ensure cost-efficient use of resources.

SBDD PURPOSE: This project aligns with and addresses the following SBDD Program Purposes:

(1) This project will collect, measure and track adoption levels (individual and institutional) and allow for regional/local/statewide benchmarking. Currently we do not have any baseline level information.
(2) Following regional/local/statewide surveying of adoption levels, we will be in a position to benchmark and track adoption and usage, and undertake planning to direct focus to those areas or constituencies that are lagging.
(3) Work programs involves disciplinary/regional/local/statewide surveying of a wide range of broadband "constituents" including, but not limited to, citizens, broadband service providers, business and industry, education, healthcare and public safety.
(5) Stakeholder participation at local and regional level is critical to ensuring effective broadband adoption, collection of usage data for broadband planning, and cost effective impact tracking of broadband efforts
(6) Impact tracking will include benchmarking data sets, service provider data provided through the State's mapping effort will show penetration levels, and adoption data will show subscription levels, and cost modeling will demonstrate opportunities for funded for broadband infrastructure development
(7) Planning effort will build on analysis emerging from the mapping effort, economic modeling, and benchmarking survey. It will include recommendations to improve broadband availability over the cycle of the grant.
(8) Outreach efforts to disseminate/exchange/seek information; promotion of state map for stakeholder verification/comment.

PROPOSED PROJECTS FIT INTO PENNSYLVANIA'S COMPREHENSIVE APPROACH TOWARD LEADERSHIP IN A DIGITAL ECONOMY

Pennsylvania is the 6th most populated and 33rd largest state. Pennsylvania is topographically diverse. Pennsylvania's mountains and forests present significant hurdles to broadband deployment. Over 50% of the state is covered by forests. And much of the level land is primarily rural, as evidenced by the 63,000 farms in the state. According to the Center for Rural PA, nearly 28% of the state's residents lived in Pennsylvania's 48 rural counties. Additionally, the Commonwealth has the nation's 3rd largest population over age 65 (behind FL and WV) and the third largest rural population (behind TX and NC). Consequently, because of its rural character, its sparse population, and its large cohort of elders, many Pennsylvanians whether they are individuals, small businesses, or anchor institutions, fall in the lower diffusion and low-adoption categories. Challenges are familiar to Pennsylvania. But Pennsylvania is prepared to meet these challenges, particularly with additional SBDD support.

The Commonwealth has made considerable progress in reaching its rural communities. The state already has one of the country's most aggressive commitments to broadband deployment. Pennsylvania's legislatively mandated broadband mapping inventory in 2004 was one of the first such enactments in the country. A recent study by the *Pew Center for the States* recognized that fewer than five states, including Pennsylvania, have been focused for years on availability, adoption and quality of broadband technology. But despite the enormous progress achieved over the years, including our recent accomplishments under the SBDD program, much work remains to be done.

Broadband is integral to the fabric of virtually every aspect of modern life. Its growing impact on economies, services, and quality of life affects all social, communal, and economic strata. In addition, the current global economic crisis in conjunction with the growing significance of digital technologies has thrust the adequacy of broadband availability and adoption into the national spotlight. But the Commonwealth recognized that these challenges can best be met with a comprehensive state strategy that addresses current shortcomings the implementation of adoption and digital literacy programs, collaborative efforts, technical assistance mechanisms, and investment in infrastructure.

The Commonwealth recognizes that federal leadership and financial commitments present a unique opportunity to advance the broadband agenda in Pennsylvania. The federal programs and resources (SBDD, ARRA) will complement and leverage the considerable investment made by Pennsylvania government and industry through state initiatives or other programs.

In anticipation of the implementation of federal broadband stimulus programs, Pennsylvania formulated a Statewide Broadband Plan which presents a unified vision, guiding principles, and a plan of action for expanding the state's broadband agenda. Our Plan affirms the vision that all citizens, businesses, and institutions in Pennsylvania should have access to high-capacity, affordable, reliable, and sustainable broadband services. It presents a plan of action to achieve this vision through four guiding principles:
Goal 1 - **Governance and Leadership:** Proactive leadership by Commonwealth government in realizing the vision of broadband for all Pennsylvanians
Goal 2- **Information, Mapping and Imagery:** Collection, analysis, process, and dissemination of information essential to the implementation of the Pennsylvania Statewide Broadband Plan
Goal 3- **Project Implementation:** Promote the deployment of infrastructure and expansion of broadband services and training, particularly to rural and underserved communities and constituents
Goal 4- **Responsible Public Support:** Facilitate the responsible investment of public funds and other resources into projects consistent with the Pennsylvania Statewide Broadband Plan.

CONCLUSION

Each component of this Amended and Supplemental SBDD application advances ideals identified under the Pennsylvania Statewide Broadband Plan ("Plan").

Broadband Data Collection, Integration, Verification, and Display
Goal 2.1 – Identify, collect, and manage all data and information critical to implementation of Plan
Goal 2.2 – Expand existing broadband inventory mapping initiative to achieve compliance with state mandate and in the pursuit of federal stimulus objectives and BDIA
Goal 2.3 – Create efficient information access and dissemination processes

State Capacity Building
Goal 1.1 – Create the Pennsylvania Broadband Council to guide and coordinate initiatives consistent with the Plan. .. with dialogue, planning, and deployment initiatives among Commonwealth agencies... and involvement and collaboration among the private sector, all public sectors (education, healthcare, public safety, etc), and industry and subject-matter experts.
Goal 1.2 – Empower state agencies to improve programs and projects consistent with the Plan... each participating agency should assess their broadband assets and needs, explore collaboration opportunities, funding sources, strategies to promote broadband as part of mission and services.
Goal 1.3 – Advocate for proactive Commonwealth legislation, policies, and regulations that support the vision of the Plan
Goal 2.1 – Identify, collect, and manage all data and information critical to implementation of Plan
Goal 2.3 – Create efficient information access and dissemination processes
Goal 2.4 – Facilitate broadband awareness and education programs that will increase adoption and sustainability
Goal 3.1 – Facilitate the planning and development of projects that expand broadband infrastructure and services ...implement local collaborations, including formation and utilization of Regional Task Forces or Tactical Broadband Teams that include representatives from government, disciplines, and other stakeholders, to serve as a conduit for multidisciplinary projects... promote the utilization of Adoption programs that provide broadband access to the general public and encourage adoption by groups such as minority, low-income, older, and rural populations.
Goal 4.3 – Monitor and evaluate projects and performance to ensure compliance with the Plan

Technical Assistance
Goal 2.4 – Facilitate broadband awareness and education programs that will increase adoption and sustainability...encourage broadband training and awareness initiatives for "user groups"... promotion of applicable broadband assistance websites, agencies, programs, and related strategies.
Goal 3.1 – Facilitate the planning and development of projects that expand broadband infrastructure and services

Regional/Local Technology Planning Teams
Goal 3.1 – Facilitate the planning and development of projects that expand broadband infrastructure and services ...implement local collaborations, including formation and utilization of Regional Task Forces or Tactical Broadband Teams that include representatives from government, disciplines, and other stakeholders, to serve as a conduit for multidisciplinary projects
Goal 4.2 - Encourage county- and regional-level multi-disciplinary review panels or task forces that can provide local guidance to state-level planning.

EVIDENCE OF SUPPORT

Attached separately (filename: **PA_Supplemental_Evidence_of_Support.pdf**), are support letters from the following agencies and partners:

- Governor's Office of Administration (OA)
- Pennsylvania Department of Community and Economic Development (DCED)
- Michael Baker Jr., Inc.
- Pennsylvania Technical Assistance Program (PennTAP)
- Pennsylvania Industrial Resource Center (IRC) Program
- Pennsylvania Local Development District (LDD) Network

GRANTEE NAME:	(PA) EXECUTIVE OFFICE OF THE COMMONWEALTH OF PENNSYLVANIA

PLEASE ENTER YOUR EXISTING, APPROVED BUDGET BELOW. It should match your current SF 424.

EXISTING BUDGET	Federal	Match	Total
Personnel Salaries	142,202	103,401	$245,603
Fringe Benefits	55,771	40,554	$96,325
Travel	0	0	$0
Equipment	0	0	$0
Supplies	0	0	$0
Subcontracts	2,047,700	0	$2,047,700
Construction	0	0	0
Other	0	417,495	$417,495
Total Direct Costs	$2,245,673	$561,450	$2,807,123
Total Indirect Costs	$0	$0	$0
Total Costs	$2,245,673	$561,450	$2,807,123
% Federal Share	80.00%		
% Applicant Share		20.00%	

PLEASE DO NOT ENTER TEXT BELOW. It will populate automatically after you complete the other sheets.

REQUESTED BUDGET	Federal	Match	Total
Personnel Salaries	$643,296	435,964	$1,079,260
Fringe Benefits	$252,301	170,985	$423,286
Travel	$0	0	$0
Equipment	$16,664	0	$16,664
Supplies	$159,823	0	$159,823
Subcontracts	$4,871,545	1,000,000	$5,871,545
Construction	$0	0	0
Other	$4,000	0	$4,000
Total Direct Costs	$5,947,628	$1,606,949	$7,554,578
Total Indirect Costs	$0	$0	$0
Total Costs	$5,947,628	$1,606,949	$7,554,578
% Federal Share	78.73%		
% Applicant Share		21.27%	

Costs by Project Category	Federal	Match	Total
Data Collection	2,059,894	-	2,059,894
State Capacity Building	1,091,283	606,949	1,698,232
Technical Assistance	1,751,451	1,000,000	2,751,451
Regional/Local Technology Planning Teams	1,045,000	-	1,045,000
TOTAL	5,947,628	1,606,949	7,554,578

(PA) EXECUTIVE OFFICE OF THE COMMONWEALT	Fed Request as % of total project cost:	78.73%

All Projects						
NEW FEDERAL REQUEST ONLY	Project Yr 2	Project Yr 3	Project Yr 4	Project Yr 5	Total	
Personnel Salaries	100,245	177,343	180,974	184,733	643,296	643,296
Fringe Benefits	39,316	69,554	70,978	72,452	252,301	252,301
Travel	0	0	0	0	0	0
Equipment	0	0	16,664	0	16,664	16,664
Supplies	0	0	158,886	937	159,823	159,823
Subcontracts	1,011,150	1,783,313	938,620	1,138,462	4,871,545	4,871,545
Construction	*0*	*0*	*0*	*0*	0	0
Other	1,000	1,000	1,000	1,000	4,000	4,000
Total Direct Costs	1,151,711	2,031,210	1,367,123	1,397,584	5,947,628	5,947,628
Total Indirect Costs	0	0	0	0	0	0
Total Costs	1,151,711	2,031,210	1,367,123	1,397,584	5,947,628	5,947,628

(PA) EXECUTIVE OFFICE OF THE COMMONWEALTH OF PENNSYLVANIA	Fed Request as % of total project cost:	21.27%

Project # 1 - Data Collection, Integration, Verification, and Display						
NEW FEDERAL REQUEST ONLY	**Project Yr 2**	**Project Yr 3**	**Project Yr 4**	**Project Yr 5**	**Total**	
Personnel Salaries						
					$0	
Total	0	0	0	0	$0	0
Fringe Benefits						
					$0	
Total	0	0	0	0	$0	0
Travel						
In-State	0				$0	
Out-of-State	0	0	0	0	$0	
Total	0	0	0	0	$0	0
Equipment						
					$0	
Total	0	0	0	0	$0	0
Supplies						
Total	0	0	0	0	$0	0
Subcontracts						
Michael Baker Jr., Inc.	61,146	1,027,894	382,716	588,138	$2,059,894	
Total	61,146	1,027,894	382,716	588,138	$2,059,894	2,059,894
Construction	0	0	0	0		
Other						
					$0	
Total	0	0	0	0	$0	0
Total Direct Costs	61,146	1,027,894	382,716	588,138	$2,059,894	2,059,894
Total Indirect Costs					$0	
Total Costs	61,146	1,027,894	382,716	588,138	$2,059,894	

(PA) EXECUTIVE OFFICE OF THE COMMONWEALTH OF PENNSYLVANIA	Fed Request as % of total project cost:	78.73%

Project # 2 - State Capacity Building						
NEW FEDERAL REQUEST ONLY	**Project Yr 2**	**Project Yr 3**	**Project Yr 4**	**Project Yr 5**	**Total**	
Personnel Salaries						
(1) State Broadband Initiatives Director (S. Suleski) @ $5,925/mo x 100% x 3 years	0	73,590	73,590	73,590	$220,769	
(2) State Broadband Program Analyst (TBD) @ $4,453/mo x 100% x 4 years	53,438	55,308	57,244	59,248	$225,238	
(3) State Broadband Outreach Consultant (TBD) @ $3,901/mo x 100% x 4 years	46,807	48,445	50,141	51,896	$197,289	
Total	100,245	177,343	180,974	184,733	$643,296	643,296
Fringe Benefits					$0	
(1) State Broadband Initiatives Director (S. Suleski) @ $5,925/mo x 100% x 3 years	0	28,862	28,862	28,862	$86,585	
(2) State Broadband Program Analyst (TBD) @ $4,453/mo x 100% x 4 years	20,958	21,692	22,451	23,237	$88,338	
(3) State Broadband Outreach Consultant (TBD) @ $3,901/mo x 100% x 4 years	18,358	19,000	19,665	20,354	$77,377	
Total	39,316	69,554	70,978	72,452	$252,301	252,301
Travel					$0	
In-State	0	0	0	0	$0	
Out-of-State	0	0	0	0	$0	
Total	0	0	0	0	$0	0
Equipment					$0	
Standard ESF physical server hardware (2)			$7,400		$7,400	
SQL Server standard			$9,264		$9,264	
Total	0	0	16,664	0	$16,664	16,664
Supplies					$0	
Virtual Server Software Licensing (includes Standard Virtual server hardware at no additional cost)	0	0	$570	0	$570	
Additional vCPU	0	0	$500	0	$500	
Additional Memory	0	0	$200	0	$200	
Physical Server Operating sytem (Enterprise Edition)	0	0	$3,100	0	$3,100	
Microsoft SMSE Licensing (patching and monitoring)	0	0	$1,840	0	$1,840	
EMC Backup client licenses	0	0	$14,000	0	$14,000	
EMC Networker Backup licenses	0	0	$4,800	0	$4,800	
Staging Database Storage	0	0	$135	0	$135	
Production Database Storage	0	0	$324	0	$324	
Standard Backup & Recovery Environment per server	0	0	$0	0	$0	
Backup Capacity (per protected GB)	0	0	$121	0	$121	
ArcGIS production licensing (2 years of maintenance)	0	0	$88,000	0	$88,000	
ArcGIS staging licensing (2 years of maintenance)	0	0	$44,000	0	$44,000	
Verisign Certificates	0	0	$360	0	$360	
100,000 Geocodes for Geocoding services	0	0	$937	$937	$1,873	
Total	0	0	158,886	937	159,823	159,823
Subcontracts					$0	
Ongoing Physical Server Support Services			4,800	4,800	$9,600	
Ongoing Virtual Server Support Services			2,800	2,800	$5,600	
Total	0	0	7,600	7,600	$15,200	15,200
Construction %	0	0	0	0		
Other					$0	
Accountability Tracking	1,000	1,000	1,000	1,000	$4,000	
Total	1,000	1,000	1,000	1,000	$4,000	4,000
Total Direct Costs	140,561	247,897	436,103	266,722	$1,091,283	1,091,283
Total Indirect Costs	0	0	0	0	$0	
Total Costs	140,561	247,897	436,103	266,722	$1,091,283	

(PA) EXECUTIVE OFFICE OF THE COMMONWEALTH OF PENNSYLVANIA	Fed Request as % of total project cost:	78.73%

Project # 3 - Technical Assistance						
NEW FEDERAL REQUEST ONLY	**Project Yr 2**	**Project Yr 3**	**Project Yr 4**	**Project Yr 5**	**Total**	
Personnel Salaries						
	$ -	0	0	0	$0	
Total	0	0	0	0	$0	0
Fringe Benefits						
	$ -	0	0	0	$0	
Total	0	0	0	0	$0	0
Travel						
In-State	0	0	0	0	$0	
Out-of-State	0	0	0	0	$0	
Total	0	0	0	0	$0	0
Equipment						
					$0	
Total	0	0	0	0	$0	0
Supplies						
					$0	
Total	0	0	0	0	$0	0
Subcontracts						
(1) Pennsylvania Technical Assistance Program (PennTAP)	299,503	277,581	255,003	308,753	$1,140,840	
(2) Pennsylvania Local Development District Network (LDD)	144,501	148,838	153,301	163,971	$610,611	
Total	444,004	426,419	408,304	472,724	1,751,451	1,751,451
Construction	0	0	0	0		
Other					$0	
	0	0	0	0	$0	
Total	0	0	0	0	$0	0
Total Direct Costs	444,004	426,419	408,304	472,724	$1,751,451	1,751,451
Total Indirect Costs					$0	
Total Costs	444,004	426,419	408,304	472,724	$1,751,451	

(PA) EXECUTIVE OFFICE OF THE COMMONWEALTH OF PENNSYLVANIA	Fed Request as % of total project cost:	78.73%

Project # 4 - Regional/Local Technology Planning Teams						
NEW FEDERAL REQUEST ONLY	**Project Yr 2**	**Project Yr 3**	**Project Yr 4**	**Project Yr 5**	**Total**	
Personnel Salaries						
	0	0	0	0	$0	
Total	0	0	0	0	$0	0
Fringe Benefits						
	0	0	0	0	$0	
Total	0	0	0	0	$0	0
Travel						
In-State	0	0	0	0	$0	
Out-of-State	0	0	0	0	$0	
Total	0	0	0	0	$0	0
Equipment						
					$0	
Total	0	0	0	0	$0	0
Supplies						
					$0	
Total	0	0	0	0	$0	0
Subcontracts						
TBD	506,000	329,000	140,000	70,000	$1,045,000	
Total	506,000	329,000	140,000	70,000	$1,045,000	1,045,000
Construction	0	0	0	0		
Other					$0	
	0	0	0		$0	
Total	0	0	0	0	$0	0
Total Direct Costs	506,000	329,000	140,000	70,000	$1,045,000	1,045,000
Total Indirect Costs					$0	
Total Costs	506,000	329,000	140,000	70,000	$1,045,000	

(PA) EXECUTIVE OFFICE OF THE COMMONWEALTH OF PENNSYLVANIA			Match as % of total project cost:		21.27%
PROPOSED MATCH FOR NEW FEDERAL FUND REQUEST	**Project Yr 2**	**Project Yr 3**	**Project Yr 4**	**Project Yr 5**	**Total**	
Personnel Salaries						
State Broadband Stimulus Director (L. Miron) @ $8,619/mo x 100% x 4 years	103,433	107,053	110,800	114,678	$435,964	
Total	103,433	107,053	110,800	114,678	$435,964	435,964
Fringe Benefits (@ 39.22%)						
State Broadband Stimulus Director (L. Miron) @ $8,619/mo x 100% x 4 years	40,566	41,986	43,456	44,977	$170,985	
Total	40,566	41,986	43,456	44,977	$170,985	170,985
Travel						
In-State	0	0	0	0	$0	
Out-of-State	0	0	0	0	$0	
Total	0	0	0	0	$0	0
Equipment						
	0	0	0	0	$0	
Total	0	0	0	0	$0	0
Supplies						
	0	0	0	0	$0	
Total	0	0	0	0	$0	0
Subcontracts						
Broadband Outreach and Aggregation Fund (BOAF) subgrants	250,000	350,000	400,000	0	$1,000,000	
Total	250,000	350,000	400,000	0	$1,000,000	1,000,000
Construction	*0*	*0*	*0*	*0*	*$0*	
Other					$0	
	0	0	0	0	$0	
Total	0	0	0	0	$0	0
Total Direct Costs	393,999	499,039	554,256	159,655	$1,606,949	1,606,949
Total Indirect Costs	0	0	0	0	$0	
Total Costs	393,999	499,039	554,256	159,655	$1,606,949	

(PA) EXECUTIVE OFFICE OF THE COMMONWEALTH OF PENNSYLVANIA

Project # 1 - Data Collection, Integration, Verification, and Display

Subcontract #1 - Michael Baker Jr., Inc.

NEW FEDERAL REQUEST ONLY	Project Yr 2	Project Yr 3	Project Yr 4	Project Yr 5	Total	
Personnel Salaries						
Project Manager @ .25 FTE - base is [$95,368] (1,576 hrs @$45.85/hr)	1,834	36,946	13,072	20,408	$72,260	
Administrative Manager @ .04 FTE - base is [$208,000] (272 hrs @$100.73/hr)	0	14,505	6,447	6,447	$27,399	
Collaboration Manager @ .14 FTE - base is [$92,581] (886 hrs @$44.51/hr)	0	22,344	8,546	8,546	$39,436	
GIS Specialist @ .48 FTE - base is [$83,200] (3,176hrs @$40/hr)	0	51,234	24,213	51,593	$127,040	
Software Developer @ .08 FTE - base is [$72,800] (480hrs @$35/hr)	16,800	0	0	0	$16,800	
GIS Associate @1.29 FTE - base is [$52,000] (8,094hrs @ $25.00/hr)	4,000	103,150	47,600	47,600	$202,350	
Total	22,634	228,179	99,878	134,594	$485,285	485,285
Fringe Benefits						
Project Manager @ .25 FTE - base is [$95,368] (1,576 hrs @$22.05/hr)	883	17,778	6,290	9,820	$34,771	
Administrative Manager @ .04 FTE - base is [$208,000] (272 hrs @$48.45/hr)	0	6,980	3,102	3,102	$13,184	
Collaboration Manager @ .14 FTE - base is [$92,581] (886 hrs @$21.41/hr)	0	10,752	4,112	4,112	$18,976	
GIS Specialist @ .48 FTE - base is [$83,200] (3,176 hrs @$19.24/hr)	0	24,654	11,651	24,827	$61,132	
Software Developer @ .08 FTE - base is [$72,800] (480hrs @$16.84/hr)	8,084	0	0	0	$8,084	
GIS Associate @1.29 FTE - base is [$52,000] (8,094 hrs @ $12.03/hr)	1,925	49,636	22,905	22,905	$97,371	
Total	10,892	109,800	48,060	64,766	$233,518	233,518
Travel						
In-State	0	41,400	11,700	11,700	$64,800	
Out-of-State	0	0	0	0	$0	
Total	0	41,400	11,700	11,700	$64,800	64,800
Equipment						
					$0	
Total	0	0	0	0	$0	0
Supplies						
Commercial Datasets		57,106	57,106	57,106	$171,319	
Total	0	57,106	57,106	57,106	$171,319	171,319
Subcontracts						
Wireless Engineer	0	261,800	17,000	17,000	$295,800	
Statistician	0	24,360	8,120	8,120	$40,600	
Update Verification	0	17,688	17,688	17,688	$53,064	
Total	0	303,848	42,808	42,808	$389,464	389,464
Construction	0		0	0		
Other						
Future Leading Practices	0	0	0	111,636	$111,636	
Total	0	0	0	111,636	$111,636	111,636
Total Direct Costs	33,526	740,334	259,552	422,610	$1,456,022	1,456,022
Total Indirect Costs	27,620	287,560	123,164	165,528	$603,872	
Total Costs	61,146	1,027,894	382,716	588,138	$2,059,894	

Project # 2 - State Capacity Building

There are no subcontracts proposed for this project

Project # 3 - Technical Assistance

Subcontract #1 - Pennsylvania Technical Assistance Program (PennTAP)

NEW FEDERAL REQUEST ONLY	Project Yr 2	Project Yr 3	Project Yr 4	Project Yr 5	Total
Personnel Salaries					
Project Director - Program Manager	$ 12,720.00	$ 13,102.00	$ 13,494.00	$ 13,898.00	$53,214
Program Coordinator	$ 3,734.00	$ 3,846.00	$ 3,962.00	$ 4,081.00	$15,623
Broadband Technical Specialist	$ 88,305.00	$ 90,954.00	$ 93,683.00	$ 96,493.00	$369,435
Broadband Content Expert - Trainer	$ 30,450.00	$ 31,364.00	$ 32,304.00	$ 33,274.00	$127,392
Instructional Designer - Web Designer	$ 36,936.00	$ 18,740.00	$ -	$ -	$55,676
Technical Interns	$ 43,200.00	$ 43,200.00	$ 43,200.00	$ 43,200.00	$172,800
Total	215,345	201,206	186,643	190,946	$794,140
Fringe Benefits					
Project Director - Program Manager	$ 3,854.00	$ 3,970.00	$ 4,089.00	$ 4,211.00	$16,124
Program Coordinator	$ 1,131.00	$ 1,165.00	$ 1,200.00	$ 1,237.00	$4,733
Broadband Technical Specialist	$ 26,756.00	$ 27,559.00	$ 28,386.00	$ 29,237.00	$111,938
Broadband Content Expert - Trainer	$ 9,226.00	$ 9,503.00	$ 9,788.00	$ 10,082.00	$38,599
Instructional Designer - Web Designer	$ 11,192.00	$ 5,678.00	$ -	$ -	$16,870
Technical Interns	$ 302.00	$ 302.00	$ 302.00	$ 304.00	$1,210
Total	52,461	48,177	43,765	45,071	$189,474
Travel					
In-State	$ 12,180.00	$ 12,545.00	$ 12,922.00	$ 13,310.00	$50,957
Out-of-State	0	0	0	0	$0
Total	12,180	12,545	12,922	13,310	$50,957
Equipment					
					$0
Total	0	0	0	0	$0
Supplies					
					$0
Total	0	0	0	0	$0
Subcontracts					
	0	0	0	0	$0
Total	0	0	0	0	$0
Construction	0	0	0	0	
Other					$0
Audit	0	0	0	5,000	$5,000
Total	0	0	0	5,000	$5,000
Total Direct Costs	279,986	261,928	243,330	254,327	$1,039,571
Total Indirect Costs	$ 59,917	$ 56,053	$ 52,073	$ 54,426	$222,469
Total Costs	339,903	317,981	295,403	308,753	$1,262,040

Subcontract #2 - Pennsylvania Local Development District Network

NEW FEDERAL REQUEST ONLY	Project Yr 2	Project Yr 3	Project Yr 4	Project Yr 5	Total
Personnel Salaries					
Regional Broadband Consultants	$ 91,350.00	$ 94,091.00	$ 96,913.00	$ 99,821.00	$382,175
Total	91,350	94,091	96,913	99,821	$382,175
Fringe Benefits					
Regional Broadband Consultants	$ 27,679.00	$ 28,510.00	$ 29,365.00	$ 30,246.00	$115,800
Total	27,679	28,510	29,365	30,246	$115,800
Travel					
In-State	0	0	0	0	$0
Out-of-State	0	0	0	0	$0
Total	0	0	0	0	$0
Equipment					
					$0
Total	0	0	0	0	$0
Supplies					
					$0
Total	0	0	0	0	$0
Subcontracts					
	0	0	0	0	$0
Total	0	0	0	0	$0
Construction	0	0	0	0	
Other					$0
Audit	0	0	0	5,000	$5,000
Total	0	0	0	5,000	$5,000
Total Direct Costs	119,029	122,601	126,278	135,067	$502,975
Total Indirect Costs	$ 25,472	$ 26,237	$ 27,023	$ 28,904	$107,636
Total Costs	144,501	148,838	153,301	163,971	$610,611

Subcontract #3 - Industrial Resource Center Network (supported through matching funds)					
NEW FEDERAL REQUEST ONLY	**Project Yr 2**	**Project Yr 3**	**Project Yr 4**	**Project Yr 5**	**Total**
Personnel Salaries					
Administrative	25,500	25,500	0	0	$51,000
Marketing and Outreach	20,000	8,000	0	0	$28,000
Technical	160,000	160,000	0	0	$320,000
Total	205,500	193,500	0	0	399,000
Fringe Benefits					
Administrative	5,500	5,500	0	0	$11,000
Marketing and Outreach	4,000	3,000	0	0	$7,000
Technical	40,000	40,000	0	0	$80,000
Total	49,500	48,500	0	0	98,000
Travel					
In-State	5,125	0	0	0	$5,125
Out-of-State	0	0	0	0	$0
Total	5,125	0	0	0	$5,125
Equipment					
					$0
Total	0	0	0	0	$0
Supplies					
					$0
Total	0	0	0	0	$0
Subcontracts					
	0	0	0	0	$0
Total	0	0	0	0	$0
Construction	0	0	0	0	
Other					$0
	0	0	0	0	$0
Total	0	0	0	0	$0
Total Direct Costs	260,125	242,000	0	0	$502,125
Total Indirect Costs	26,013	24,200	0	0	$50,213
Total Costs	286,138	266,200	0	0	$552,338

Project # 4 - Regional/Local Technology Planning Teams					
Subcontract #1 - Industrial Resource Center Network					
NEW FEDERAL REQUEST ONLY	**Project Yr 1**	**Project Yr 2**	**Project Yr 4**	**Project Yr 5**	**Total**
Personnel Salaries					
IRC Network Statewide Director for Project Management	10,500	0	0	0	$10,500
Total	10,500	0	0	0	$10,500
Fringe Benefits					
IRC Network Statewide Director for Project Management	2,625	0	0	0	$2,625
Total	2,625	0	0	0	$2,625
Travel					
In-State	2,000	0	0	0	$2,000
Out-of-State	0	0	0	0	$0
Total	2,000	0	0	0	$2,000
Equipment					
					$0
Total	0	0	0	0	$0
Supplies					
					$0
Total	0	0	0	0	$0
Subcontracts					
Research Consultant	90,000	0	0	0	$90,000
Total	90,000	0	0	0	$90,000
Construction	0	0	0	0	
Other					$0
	0	0	0	0	$0
Total	0	0	0	0	$0
Total Direct Costs	105,125	0	0	0	$105,125
Total Indirect Costs	2875	0	0	0	$2,875
Total Costs	108,000	0	0	0	$108,000

Other scope of work items under this category will be bid out competitively to one or more contractors or consultants, therefore the names of specific contractors and their detailed budgets are not yet known.

(PA) EXECUTIVE OFFICE OF THE COMMONWEALTH OF PENNSYLVANIA

All project costs are reasonable, allocable, and necessary.

Project # 1 - Data Collection, Integration, Verification, and Display				
Category	**Description of Budget Item**	**Federal**	**Matching**	**Total**
Personnel Salaries	**Project Manager:** Plans, directs, and coordinates activities of designated project to ensure that goals or objectives of project are accomplished within prescribed time frame and funding parameters. An average of approximately 0.25 Project Managers will work on the project for years 2 thru 5. Based on a Project Manager average hourly salary of $45.85 x 1576 hours, the cost to the project for years 2 through 5 is $72,260.	$ 72,260	$ -	$ 72,260
	Administrative Manager: Administers the delivery of resources associated with legal, finance, human resources, facilities, and purchases. An average of approximately 0.04 Administrative Managers will work on the project for years 3 thru 5. Based on a Project Manager average hourly salary of $100.73 x 272 hours, the cost to the project for years 3 through 5 is $27,399.	$ 27,399	$ -	$ 27,399
	Collaboration Manager: Directly supervises and coordinates the outreach efforts of technical staff and performs Provider data collection. An average of approximately 0.14 Collaboration Managers will work on the project for years 3 thru 5. Based on a Collaboration Manager average hourly salary of $44.51 x 886 hours, the cost to the project for years 3 through 5 is $39,436.	$ 39,436	$ -	$ 39,436
	GIS Specialist: Responsible for a range of GIS tasks, including program development , evaluation and maintenance, complex data analysis and client consultation. An average of approximately 0.48 GIS Specialists will work on the project for years 3 thru 5. Based on a GIS Specialist average hourly salary of $40.00 x 3176 hours , the cost to the project for years 3 through 5 is $127,040.	$ 127,040	$ -	$ 127,040
	Software Developer: Analyzes and evaluates existing or proposed systems, and devises computer programs, systems and related procedures to process data. Prepares program specifications and diagrams, and develops coding logic flowcharts. Encodes, tests, debugs, and installs the operating programs and procedures in coordination with computer operations and user departments. An average of approximately 0.08 Software Developers will work on the project for years 2 thru 5. Based on a Software Developer average hourly salary of $35.00 x 480 hours, the cost to the project for years 2 through 5 is $16,800.	$ 16,800	$ -	$ 16,800
	GIS Associate: Responsible for input, update, modification, manipulation and providing basic analysis of GIS data. An average of approximately 1.29 GIS Associates will work on the project for years 2 thru 5. Based on a GIS Associate average hourly salary of $25.00 x 8094 hours, the cost to the project for years 2 through 5 is $202,350.	$ 202,350	$ -	$ 202,350
	Total Personnel Salaries Costs	**$ 485,285**	**$ -**	**$ 485,285**
Fringe Benefits	**Project Manager:** 1,576 hrs @$22.05/hr (48.12% of base hourly)	$ 34,771	$ -	$ 34,771
	Administrative Manager: 272 hrs @$48.45/hr (48.12% of base hourly)	$ 13,184	$ -	$ 13,184
	Outreach Manager: 886 hrs @$21.41/hr (48.12% of base hourly)	$ 18,976	$ -	$ 18,976
	GIS Specialist: 3,176 hrs @$19.24/hr (48.12% of base hourly)	$ 61,132	$ -	$ 61,132
	Software Developer: 480hrs @$16.84/hr (48.12% of base hourly)	$ 8,084	$ -	$ 8,084
	GIS Associate: 8,094 hrs @ $12.03/hr (48.12% of base hourly)	$ 97,371	$ -	$ 97,371
	Total Fringe Benefits Costs	**$ 233,518**	**$ -**	**$ 233,518**
Travel	Consultant will travel to various destinations to perfrom field data acquisition and validations, and lead/participate in project team, broadband provider and local agency meetings. The average travel rate is $200/day, including travel, lodging and meals. Based on 324 project travel days, the cost to the project for years 3 through 5 is $64,800.	$ 64,800	$ -	$ 64,800
	Total Travel Costs	**$ 64,800**	**$ -**	**$ 64,800**
Supplies	**Commercial Dataset:** The commercial validation datasets will be acquired for each semi-annual update for years 3 through 5 at a cost of $25,553/update for a total of $171,319 cost to the project.	$ 171,319		$ 171,319
	Total Supplies Costs	**$ 171,319**	**$ -**	**$ 171,319**
Contractual	**Wireless Engineer:** Vendor will be contracted to perform field surveys to develop coverage area and speed tier data for non-cooperating wireless provider propogation map development. Based on a year 3 initial field survey cost of $244,800 and a cost of $51,000 for years 3 through 5 for updates, the total cost to the project is $295,800.	$ 295,800	$ -	$ 295,800
	Statistician: Vendor will be contracted to develop mathematical theory or applies statistical theory and methods to collect, organize, interpret, and summarize numerical data to provide usable information to solve problems and make predictions on future outcomes. Develops theories on which statistical techniques are based. Based on year 3 initial cost of $24,360 and a cost of $8,120 for each of years 4 and 5, the total cost to the project for years 3 through 5 is $40,600.	$ 40,600	$ -	$ 40,600
	Update Verification: Vendor will be contracted to perform updates to the field validation dataset to be used to validate the semi-annual broadband mapping updates for years 3 through 5 at a cost of $8,844/update for a total of $53,064 cost to the project.	$ 53,064	$ -	$ 53,064
	Total Contractual Costs	**$ 389,464**	**$ -**	**$ 389,464**
Other	**Future Leading Practice:** The incorporation of a Future Leading Practice that is currently undefined but is included in the overall budget request. It will be defined and agreed upon by both the State and the Program Office for Years 2-5. The total cost is $111,636.	$ 111,636		$ 111,636
	Total Other Costs	**$ 111,636**	**$ -**	**$ 111,636**
Total Direct Charges	The sum of all the direct cost categories.	**$ 1,456,022**	**$ -**	**$ 1,456,022**
Indirect Charges		$ 603,872	$ -	$ 603,872
Total Project Costs		**$ 2,059,894**	**$ -**	**$ 2,059,894**

Project # 2 - Capacity Building				
Category	**Description of Budget Item**	**Federal**	**Matching**	**Total**
Personnel Salaries				
	State Broadband Initiatives Director (S. Suleski) - This position resides in the PA Department of Community & Economic Development ann will work 100% of the time on the proejct for 3 years. Based on an annual salary of $73,590. Yearly salary adjustments projected at 3.5% per year. Years 1 and 2 of this position are currently funded by the current broadband mapping award.	$ 220,769	$ -	$ 220,769
	State Broadband Stimulus Director (L. Miron) - This position resides in thethe Governor's Office of Administration and will work 100% of the time on the proejct for 4 years. Based on an annual salary of $103,433. Yearly salary adjustments projected at 3.5% per year.	$ -	$ 435,964	$ 435,964
	Broadband Initiatives Program Analyst (TBD) - This position resides in the PA Department of Community & Economic Development and will work 100% of the time on the proejct for 4 years. Based on an annual salary of $53,438. Yearly salary adjustments projected at 3.5% per year.	$ 225,238		$ 225,238
	State Broadband Stimulus Outreach Consultant (TBD) - his position resides in the Governor's Office of Administration and will work 100% of the time on the proejct for 4 years. Based on an annual salary of $46,807. Yearly salary adjustments projected at 3.5% per year.	$ 197,289		$ 197,289
	Total Personnel Salaries Costs	**$ 643,296**	**$ 435,964**	**$ 1,079,260**
Fringe Benefits				
	Fringe benefits are calculated as 39.22% of base salary. Benefits include health care, Social Security, workers compensation, and retirement benefits.			
	State Broadband Stimulus Director (L. Miron)	$ -	$ 170,985	$ 170,985
	State Broadband Initiatives Director (S. Suleski)	$ 86,585	$ -	$ 86,585
	Broadband Initiatives Program Analyst (TBD)	$ 88,338	$ -	$ 88,338
	State Broadband Stimulus Outreach Consultant (TBD)	$ 77,377		
	Total Fringe Benefits Costs	**$ 252,301**	**$ 170,985**	**$ 345,909**
Travel		$ 69,000	$ -	$ 69,000
			$ -	$ -
	Total Travel Costs	**$ 69,000**	**$ -**	**$ 69,000**
Equipment				$ -
	Standard ESF physical server hardware (2) to support physical transition of hosting of mapping solution	$ 7,400	$ -	$ 7,400
	SQL Server standard to support physical transition of hosting of mapping solution	$ 9,264		$ 9,264
	Total Equipment Costs	**$ 16,664**	**$ -**	**$ 16,664**
Supplies				$ -
	Virtual Server Software Licensing (includes Standard Virtual server hardware at no additional cost) to support physical transition of hosting of mapping solution	$ 570	$ -	$ 570
	Additional vCPU to support physical transition of hosting of mapping solution	$ 500	$ -	$ 500
	Additional Memory to support physical transition of hosting of mapping solution	$ 200	$ -	$ 200
	Physical Server Operating sytem (Enterprise Edition) to support physical transition of hosting of mapping solution	$ 3,100	$ -	$ 3,100
	Microsoft SMSE Licensing (patching and monitoring) to support physical transition of hosting of mapping solution	$ 1,840	$ -	$ 1,840
	EMC Backup client licenses to support physical transition of hosting of mapping solution	$ 14,000	$ -	$ 14,000
	EMC Networker Backup licenses to support physical transition of hosting of mapping solution	$ 4,800	$ -	$ 4,800
	Staging Database Storage to support physical transition of hosting of mapping solution	$ 135	$ -	$ 135
	Production Database Storage to support physical transition of hosting of mapping solution	$ 324	$ -	$ 324
	Standard Backup & Recovery Environment per server to support physical transition of hosting of mapping solution	$ -	$ -	$ -
	Backup Capacity (per protected GB) to support physical transition of hosting of mapping solution	$ 121	$ -	$ 121
	ArcGIS production licensing (2 years of maintenance) to support physical transition of hosting of mapping solution	$ 88,000	$ -	$ 88,000
	ArcGIS staging licensing (2 years of maintenance) to support physical transition of hosting of mapping solution	$ 44,000	$ -	$ 44,000
	Verisign Certificates to support physical transition of hosting of mapping solution	$ 360	$ -	$ 360
	100,000 Geocodes for Geocoding services to support physical transition of hosting of mapping solution	$ 1,873	$ -	$ 1,873
	Total Supplies Costs	**$ 159,823**	**$ -**	**$ 159,823**
Contractual	Ongoing Physical Server Support Services to support physical transition of hosting of mapping solution	$ 9,600	$ -	$ 9,600
	Ongoing Virtual Server Support Services to support physical transition of hosting of mapping solution	$ 5,600	$ -	$ 5,600
	Total Contractual Costs	**$ 15,200**	**$ -**	**$ 15,200**
Other				$ -
	Accountability Tracking - costs assocatiated with Commonwealth operational tracking of stimulus grant funds and monitoring procedures	$ 4,000	$ -	$ 4,000
	Total Other Costs	**$ 4,000**	**$ -**	**$ 4,000**
Total Direct Charges	The sum of all the direct cost categories.	**$ 1,091,283**	**$ 606,949**	**$ 1,620,856**
Indirect Charges			$ -	$ -
Total Project Costs		**$ 1,091,283**	**$ 606,949**	**$ 1,620,856**

Project # 3 - Technical Assistance				
Category	**Description of Budget Item**	**Federal**	**Matching**	**Total**
Personnel Salaries	Project Director - Program Manager Responsibilities will include ensuring that technical assistance tasks for non-government are being met, preparing project reports, and supervising the Broadband Technical Specialists. 1 FTE @ 15% effort for 48 months. Based on an annual salary of $87,000, with a 3 percent increase each year.	$ 53,214.00	$ -	$ 53,214
	Program Coordinator Responsibilities will include coordinating interns and partners and coordinate meetings and prepare data for program reports. 1 FTE @ 10% effort for 48 months. Based on an annual salary of $37,000, with a 3 percent increase each year.	$ 15,623.00	$ -	$ 15,623
	Broadband Technical Specialist Responsibilities will include conducting technical assistance tasks for non-government entities and broadband step-up clients. 3 FTE @ 50% effort for 48 months. Based on an annual salary of $58,000, with a 3 percent increase each year.	$ 169,435.00	$ -	$ 169,435
	Regional Broadband Consultants Responsibilities will include conducting technical assistance tasks for government and non-profit entities and outreach tasks. 5 FTE @ 40% effort for 48 months. Based on an annual salary of $45,000, with a 3 percent increase each year.	$ 182,175.00	$ -	$ 182,175
	Broadband Content Expert - Trainer Responsibilities will include developing and delivering the broadband-enabled certificate training. 1 FTE @ 50% effort for 48 months. Based on an annual salary of $60,000, with a 3 percent increase each year.	$ 127,392.00	$ -	$ 127,392
	Instructional Designer - Web Designer Reponsibilities will include preparing the educational content for delivery and creating a web site for the content. 2 FTE @ 25% effort for 18 months. Based on an annual salary of $73,000, with a 3 percent increase each year.	$ 55,676.00	$ -	$ 55,676
	Technical Interns Responsibilities will include conducting technical assistance and implementation tasks for non-government entities and broadband step-up clients. 20 interns every two years or 40 interns total @ 480 hours @ $9.00/hour	$ 172,800.00	$ -	$ 172,800
	Total Personnel Salaries Costs	**$ 776,315**	**$ -**	**$ 776,315**
Fringe Benefits				$ -
	Fringe Benefits are negiotiated for use with federal contracts for the sub-recipients. Rates are 30.3% for salaried staff and 0.7% for student interns. Rates are negiotiated annually and will be applied to the project at the cnew negitiated rate when the effort is conducted.		$ -	$ -
	Project Director - Program Manager - 30.3%	$ 16,124.00	$ -	$ 16,124
	Program Coordinator - 30.3%	$ 4,733.00	$ 60,600.00	$ 65,333
	Broadband Technical Specialist - 30.3%	$ 51,338.00	$ 60,600.00	$ 111,938
	Regional Broadband Consultants - 30.3%	$ 55,200.00	$ -	$ 55,200
	Broadband Content Expert - Trainer - 30.3%	$ 38,599.00	$ -	$ 38,599
	Instructional Designer - Web Designer - 30.3%	$ 16,870.00	$ -	$ 16,870
	Technical Interns- 0.7%	$ 1,210.00	$ -	$ 1,210
	Total Fringe Benefits Costs	**$ 184,074**	**$ -**	**$ 184,074**
Travel	Visits to Clients to perform technical assistance to non-government clients. Calculated using a base of 96 client trips per year @ $100 per trip. Use 3% increase for travel rates per year.	$ 40,766.00	$ -	$ 40,766
	Training program travel - to deliver training programs for the broadband enabled certificate. Calculated using a base of 12 training trips per year @ $200 per trip. Use 3% increase for travel rates per year.	$ 10,191.00	$ -	$ 10,191
	Total Travel Costs	**$ 50,957**	**$ -**	**$ 50,957**
Supplies				$ -
				$ -
	Total Supplies Costs	**$ -**	**$ -**	**$ -**
Contractual	KickStart Microgrants Implementation grants are available for Broadband-Enabled clients for up to $10,000 per client. Computed at 40 clients at the max grant amount.	$ 400,000.00		$ 400,000
	This activity will be support a grant from the DCED Broadband Outreach and Aggregation Fund (BOAF) program to the Industrial Resource Center (IRC) Network to provide technical broadband assistance to the manufacuturing sector statewide, along with other projects to advance the adoption of broadband solutions. The applicant invests in broadband outreach and aggregation activities across the state. These investments are legislatively budgeted and are mandated to be used to support the following activities: 1. Outreach programs for political subdivisions, economic development entities, schools, health care facilities, businesses, and residential customers concerning the benefits, use, and procurement of broadband services; and 2. Demand aggregation for broadband services in communities or political subdivisions with limited access to adequate and cost-effective services in order to compel the deployment of broadband telecommunications solutions.	$ -	$ 1,000,000	$ 1,000,000
	Total Contractual Costs	**$ 400,000**	**$ 1,000,000**	**$ 1,400,000**
Other				$ -
	Sub-Recipient Audits - Calculated at $5000 per audit per sub-recipient	$ 10,000		$ 10,000
	Total Other Costs	**$ 10,000**	**$ -**	**$ 10,000**
Total Direct Charges	The sum of all the direct cost categories.	**$ 1,421,346**	**$ 1,000,000**	**$ 2,421,346**
Indirect Charges	Sub-recipients apply an indirect cost rate of 21.4% to all direct cost categories. A copy of the sub-recipient's current negotiated indirect cost rate with the U.S. Department of Navy is available upon request.	$ 330,105		$ 330,105
Total Project Costs		**$ 1,751,451**	**$ 1,000,000**	**$ 2,751,451**

Project # 4 - Regional/Local Technology Planning Teams				
Category	Description of Budget Item	Federal	Matching	Total
Personnel Salaries				$ -
				$ -
	Total Personnel Salaries Costs	$ -	$ -	$ -
Fringe Benefits				$ -
				$ -
	Total Fringe Benefits Costs	$ -	$ -	$ -
Equipment				$ -
				$ -
	Total Equipment Costs	$ -	$ -	$ -
Supplies				$ -
				$ -
	Total Supplies Costs	$ -	$ -	$ -
Contractual				$ -
	Manufacturing Benchmarking Study - subcontract to the Industrial Resource Center (IRC) Network to conduct	$ 108,000		
	Cost Modeling (subcontractor TBD)	$ 100,000		$ 100,000
	Adoption Measurement & Tracking (subcontractor TBD)	$ 837,000		
	Total Contractual Costs	$ 1,045,000	$ -	$ 1,045,000
Other				$ 108,000
				$ -
	Total Other Costs	$ -	$ -	$ -
Total Direct Charges	The sum of all the direct cost categories.	$ 1,045,000	$ -	$ 1,045,000
Indirect Charges		$ -	$ -	$ -
Total Project Costs		$ 1,045,000	$ -	$ 1,045,000

pennsylvania
OFFICE OF ADMINISTRATION

July 1, 2010

Hon. Lawrence E. Strickling
Assistant Secretary for Communications & Technology
National Telecommunications and Information Agency
U.S. Department of Commerce
Herbert C. Hoover Building
1401 Constitution Avenue, NW
Washington, DC 20230

Dear Assistant Secretary Strickling:

I write this letter in support of the Commonwealth's submission of an Amended and Supplemental application under the State Broadband Data and Development Grant (SBDD). The Governor's Office of Administration, Office for Information Technology (OA/OIT) is the executive agency responsible for leading and coordinating information technology services in the Commonwealth of Pennsylvania.

OA/OIT has a well rounded team with subject matter expertise in the areas of project management, broadband policy, systems and applications development, and Geospatial Technologies/Geographic Information Systems (GT/GIS). These competencies are vital to the success of the mapping and the planning effort undertaken under the SBDD in partnership with the state Department of Community & Economic Development (DCED). OA/OIT serves as the technical advisor to DCED on the mapping effort, and OA/OIT oversees the implementation of the planning component. This agency will continue to serve in that capacity over the five-year funding cycle.

OA/OIT's participation in the project is deeply rooted and is vital to its continued success. While this list is not exhaustive, the Governor's Office of Administration contributes to the advancement of the broadband agenda in Pennsylvania through:

- Implementation of the state Broadband Plan, many aspects of which are consistent with the objectives of the SBDD program;
- Convening the state Broadband Council comprised of the Governor's Office, the Office of Administration (OA), the Department of Community and Economic Development (DCED), the Public Utility Commission (PUC), and others as designated by the Secretary of Administration;

- Management of the SBDD planning grant, including the organization of a statewide Broadband Summit this fall which will convene various broadband stakeholders, anchor institutions, and policy makers to discuss enhanced planning and coordination of broadband activities related to access and adoption;
- Coordination of broadband planning and activities among Commonwealth agencies that have intersecting missions and constituents and through defined "communities of practice;"
- Responsibility for the commonwealth's geospatial preparedness, coordination of enterprise geospatial initiatives, and geospatial interoperability and data sharing across all levels of government in support of this project and other defined priorities and objectives. The Pennsylvania Geospatial Technologies Office is housed in OA/OIT.

Pennsylvania is home to one of the nation's most aggressive broadband deployment programs and one of the earliest state broadband mapping programs created through state statute in 2004. A recent study by the *Pew Center for the States* recognized that fewer than five states, including Pennsylvania, have been focused for years on availability, adoption and quality of broadband technology. Despite the enormous progress achieved over the years, including our recent accomplishments under the SBDD program, much work remains to be done.

Our ability to secure additional funding from the NTIA to sustain the mapping initiative and to build additional capacity at the state level will be vital to the continued advancement of the broadband agenda in Pennsylvania. As testimony to the commitment of the Governor's Office of Administration to the success of the SBDD program, the agency will cover the salary and benefits costs of the state's Director of Broadband Stimulus Initiatives (Project Manager 3 level) and pledge this as a match against additional state capacity building resources requested pursuant to the SBDD program. Particulars of the match are discussed in further detail in the budget documentation submitted in support of this supplemental funding request.

Thanks for your consideration of this funding request.

Sincerely,

Naomi Wyatt

Naomi Wyatt
Secretary of Administration

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF COMMUNITY AND ECONOMIC DEVELOPMENT
HARRISBURG, PA 17120

OFFICE OF SECRETARY

July 1, 2010

Hon. Lawrence E. Strickling
Assistant Secretary for Communications & Technology
National Telecommunications and Information Agency
U.S. Department of Commerce
Herbert C. Hoover Building
1401 Constitution Avenue, NW
Washington, DC 20230

Dear Assistant Secretary Strickling:

I am pleased to write you in support of the Commonwealth's submission of an Amended and Supplemental application under the State Broadband Data and Development Grant (SBDD). The mapping and planning program, a joint effort between this agency and the Governor's Office of Administration, has proven to be a tremendous success. But Pennsylvania has a proven track record of leadership in the area of broadband policy development and program implementation. A recent study from the Pew Center on the States acknowledged Pennsylvania's standing as one of the leaders among states in terms of broadband deployment, outreach and adoption efforts. This supplemental funding opportunity will enable the Commonwealth to build upon those successes.

The Commonwealth's lead agency in terms of broadband mapping is the Department of Community & Economic Development (DCED) by virtue of its statutory requirement to develop and to maintain a state broadband mapping inventory enacted under Act 183 of 2004 ("Act 183"), more commonly referred to as the reauthorization of Chapter 30 of state Public Utility Code (66 Pa. C.S. P.L. 1398). Pennsylvania's legislatively mandated broadband mapping inventory was one of the first such enactments in the country, if not the first. Subsequent federal involvement in the broadband mapping arena (Broadband Data Improvement Act; State Broadband Data and Development Program; and FCC National Broadband Strategy) and the availability of federal resources has enhanced our broadband mapping information both in terms of quality and quantity.

Key to the stability of Pennsylvania's economy will be its ability to implement and sustain technology-based economic development initiatives (TBED) such as broadband mapping and planning and coordination. Specifically, TBED activities are designed to unlock latent economic potential that would otherwise remain dormant. Our TBED strategy focuses on cultivating assets already in existence in Pennsylvania – indigenous resources such as talent, infrastructure, technology and capital.

Broadband activities should be planned and coordinated with the active participation of those who share our vision of improving economic opportunities and quality of life.

Fortunately, we have enlisted the involvement of several such partners in the Commonwealth's effort. Specifically, the technical assistance and regional collaboration endeavors funded through SBDD program will involve the participation of some of this agency's most effective and reliable partners, such as:

- **Industrial Resource Centers (IRCs)** whose focus is to improve the competitive ability of Pennsylvania's traditional and emerging manufacturing firms. This network of seven private, nonprofit economic development corporations located throughout the commonwealth assists small and medium-sized manufacturers with implementation of manufacturing technologies and sound management practices.

- **Local Development Districts (LDDs)** who were created by federal statute and are funded at the federal level through the Appalachian Regional Commission. These entities will be fulfilling their role by linking with the Commonwealth for the purposes of identifying potential end-users, aggregating demand, promoting adoption, building partnerships, and coordinating local and regional efforts.

- **Pennsylvania Technical Assistance Program (PennTAP)** is a program of Pennsylvania State University, PennTAP is a federal-state-university partnership for economic development. PennTAP helps Pennsylvania companies improve their competitiveness by providing technology assistance and information to help resolve specific technical questions or needs. The program focuses on helping smaller firms that typically do not have the in-house expertise or resources to resolve specific technology questions or needs. PennTAP technical specialists assist small companies by providing technical advice, technical information, and connections to other expertise, resources, or programs. PennTAP services the entire state of Pennsylvania through a network of technical specialists who have specific areas of technical expertise and are located throughout the state.

It is an indisputable fact that broadband is a critical infrastructure in the 21st century. Broadband should be planned in such a way as to increase economic opportunity, quality of life, and other socioeconomic goods. This supplemental mapping and planning grant opportunity will help us build upon the solid foundation that has been erected in the Keystone state.

DCED's commitment to the continued and enhanced success of the mapping and planning program is underscored by this agency pledge of match in the form of a commitment from the state Broadband Outreach & Aggregation Fund (BOAF) during of the life-cycle of the project.

Thanks in advance for your full consideration of this supplemental funding request.

Sincerely,

Austin J. Burke
Secretary

Michael Baker Jr., Inc.
A Unit of Michael Baker Corporation

4301 Dutch Ridge Road
Beaver, Pennsylvania 15009

(724) 495-4146
FAX (724) 495-4078

July 1, 2010

Mr. Lawrence E. Strickling
Assistant Secretary for Communication and Information
National Telecommunications and Information Administration
U.S. Department of Commerce
1401 Constitution Avenue, NW
Washington, D.C. 20230

Subject: Evidence of Support on the SBDD Program

Dear Mr. Strickling:

In relation to the Amended or Supplemental Grant Application for the State Broadband Data and Development (SBDD) Program, the Commonwealth of Pennsylvania has Michael Baker Jr., Inc.'s (Baker) support necessary to accomplish the program purposes. Currently, Baker is providing data collection, integration, verification, and display services to the Commonwealth for years 1 and 2 of the SBDD program requirements and we will continue such support services for the proposed amendments and supplemental activities for years 3 through 5.

Sincerely,

MICHAEL BAKER JR., INC.

Michael P. Anderson, PMP, GISP
Project Manager

July 1, 2010

Mr. Lawrence E. Strickling
Assistant Secretary for Communication and Information
National Telecommunications and Information Administration
U.S. Department of Commerce
1401 Constitution Avenue, NW
Washington, D.C. 20230

Dear Mr. Strickling:

On behalf of the Pennsylvania Technical Assistance Program (PennTAP) at Penn State University, I am happy to support the Commonwealth's submission of an Amended and Supplemental application under the State Broadband Data and Development Grant (SBDD) program.

We know that the adoption and implementation of broadband solutions are critically important to Pennsylvania's economic competitiveness, and the Technical Assistance component of the Commonwealth's proposal will provide much needed assistance to local governments, non-profits, small businesses, and anchor institutions, including libraries, schools, healthcare facilities, first responders to assist in the adoption and utilization of broadband.

The Pennsylvania State University is committing to provide the resources of the university to assist in the successful implementation of this initiative

Sincerely,

Wayne Figurelle

Wayne Figurelle
Director

PENNTAP at Penn State University
Suite 416C, The 329 Building, University Park, PA 16802

Phone/Cell (814) 777-2965
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pennsylvania
DEPARTMENT OF COMMUNITY
& ECONOMIC DEVELOPMENT

Mr. Lawrence E. Strickling
Assistant Secretary for Communication and Information
National Telecommunications and Information Administration
U.S. Department of Commerce
1401 Constitution Avenue, NW
Washington, D.C. 20230

Dear Mr. Strickling:

On behalf of the Industrial Resource Center Program, I fully support the Commonwealth's submission of an Amended and Supplemental application under the State Broadband Data and Development Grant (SBDD) program.

As the commonwealth's first Manufacturing Ombudsman in the Department of Community and Economic Development, my role is to advocate for manufacturers issues, needs and concerns in government. I provide one-on-one assistance as an arbitrator on behalf of manufacturers, provide policy support to the Governor and Secretary and communicate to manufacturers and the citizens on the importance of manufacturing in Pennsylvania and highlight the robust resources the commonwealth offers to these firms.

From my role, I know it is crucial for our small and medium sized manufacturing firms to remain competitive and to access the latest technologies and tools to support their growth and competitiveness. The ability to have access to, and effectively leverage, broadband technologies is a foundation that all small and medium sized manufactures must achieve. Pennsylvania relies on manufacturing for it's economic well being – it's our largest sector by output, it employs over 570,000 of our citizens, it results in 92% of our exports and provides the majority of our research and development expenditures that will lead to future innovation.

Our Pennsylvania Industrial Resource Center Program is uniquely positioned to help small and medium sized manufacturers achieve the vast benefits and economic impact resulting from broadband technologies under the Technical Assistance component of the Commonwealth's proposal. The IRC Program was created in 1988 and has developed into a public private model which not only includes the Commonwealth, but support from our federal partners at the US Department of Commerce and private manufacturing firms. Their focus on small and medium sized manufactures for 22 years and their ability to address all aspects of operations allows them to successfully expand their current assistance model to support adoption and expansion of broadband technologies.

Thank you for your consideration of Commonwealth's application and technical assistance request. The Industrial Resource Center Program is committed to providing the resources of this statewide Network to assist in the successful implementation of this project and to support our manufacturing sector.

Sincerely,

Tom Palisin

Tom Palisin
Manufacturing Ombudsman

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pennsylvania
DEPARTMENT OF COMMUNITY
& ECONOMIC DEVELOPMENT

July 1, 2010

Mr. Lawrence E. Strickling
Assistant Secretary for Communication and Information
National Telecommunications and Information Administration
U.S. Department of Commerce
1401 Constitution Avenue, NW
Washington, D.C. 20230

Dear Mr. Strickling:

On behalf of the seven Local Development Districts (LDDs) serving the 52 Appalachian counties in Pennsylvania, I fully support the Commonwealth's submission of an Amended and Supplemental application under the State Broadband Data and Development Grant (SBDD) program.

As Pennsylvania's program manager for Appalachian Regional Commission (ARC) activities, I have seen the efforts undertaken by our LDDs to promote and deploy broadband resources throughout our neediest communities. It is vital that our businesses, local governments, non-profits and citizens in our rural areas have access to the wide array of information and resources delivered by broadband technology.

Pennsylvania's regional LDDs are the conduit for the delivery of critical community and economic development services. Under their leadership, they coordinate the delivery of federal, state and local resources. With direction by public and private sector board leadership, they are positioned well to quickly and effectively manage resources to meet needs often unique to the regions they serve.

The Commonwealth is committed to leveraging resources which may be available through this effort and will also seek to allocate Appalachian Regional Commission funds where appropriate to expand the scope of services provided. Thank you for your consideration of Commonwealth's application and technical assistance request.

Sincerely,

Neil Fowler, Director
Appalachian Development Center

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