OMB Number: 4040-0004 Expiration Date: 04/31/2012

Application for Federal Assistance SF-424 Version 02					
*1. Type of Submission	*2. Type of Applic	cation	*If Revision, select appropriate letter(s):		
☐ Preapplication	☐ New				
Application	☐ Continuation				
☐ Changed/Corrected Application	✓ Revision				
*3. Date Received:	4. Application	Identifie	er:		
August 12, 2010				•	
5a. Federal Entity Identifier:		*5b. Fe	deral Award Identifier:		
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State Use Only:					
6. Date Received by State:		7. State	Application Identifier:		
8. APPLICANT INFORMATION:					
* a. Legal Name: Commonwealth					
* b. Employer/Taxpayer Identifica	tion Number (EIN	(/TIN):	*c. Organizational DUNS:		
610600439			007002959		
d. Address:					
*Street1: 700 Capitol Avenue			<del></del>		
Street 2:					
*City: Frankfort					
County:					
*State: кептиску					
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Country: United States		*Zir	o/ Postal Code: 40601-3410		
e. Organizational Unit:					
Department Name:			Division Name:	<del>-, · · · · · · · · · · · · · · · · · · ·</del>	
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f. Name and contact information of					
Prefix: Mr. Wild le Name:	Firs	st Name:	Phil	ļ	
*Last Name: Baughn					
Suffix:				1	
Title: Chief Information Officer					
Organizational Affiliation:					
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*Telephone Number: 502-564-684	0	Fax	Number:		
*Email: phil.baughn@ky.gov					

OMB Number: 4040-0004 Expiration Date: 04/31/2012

Application for Federal Assistance SF-424	Version 02
9. Type of Applicant 1; Select Applicant Type: A. State Govern	ment
Type of Applicant 2: Select Applicant Type:	
- Select One -	
Type of Applicant 3: Select Applicant Type:	
- Select One -	
*Other (specify):	
*10. Name of Federal Agency:  Department of Commerce	
11. Catalog of Federal Domestic Assistance Number:	
CFDA Title:	
*12. Funding Opportunity Number: 0660-ZA29	*
0660-ZA29	
*Title: Recovery Act - State Broadband Data and Develo	nment Crant Braguan
Recovery Act - State Dioachand Data and Develo	prinerit Grant Program
13. Competition Identification Number:	
Title:	
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14. Areas Affected by Project (Cities, Counties, States, etc.):	
The state of the s	
*15. Descriptive Title of Applicant's Project:	
Kentucky Broadband Mapping Project	
Attack grounding January	47
Attach supporting documents as specified in agency instruc	cuons.

OMB Number: 4040-0004 Expiration Date: 04/31/2012

<b>Application <u>for</u> Federal Ass</b>	istance SF-424		Version 02
16. Congressional Districts Of:			
*a, Applicant KY-A11	*b. Prog	ram/Project; KY-A11	
Attach an additional list of Program/	Project Congressional Districts	if needed.	
			•
17 Dranged Draines			
17. Proposed Project:			
*a. Start Date: 01/01/2010	*b. End Date:	01/01/2015	
18. Estimated Funding (\$):			
*a. Federal	\$3,213,717.00		
*b. Applicant	\$803,934.00		
*c. State			
*d, Local			
*e. Other *f. Program Income			
*g. TOTAL	\$4,017,651.00		
*19. Is Application Subject to Rev		Order 12372 Process?	
	*	•	
📝 a. This application was made ava	ilable to the State under the Exc	ecutive Order 12372 Proce	ess for review on 8/14/2009
Do b. Program is subject to E.O. 123	372 but has not been selected by	the State for review.	•
c. Program is not covered by E.C			
*20. Is the Applicant Delinquent Of ☐ Ycs ☑ No	n Any Federal Debt? (If "Yes",	provide explanation.)	
21. *By signing this application, I centered herein are true, complete and accurate with any resulting terms if I accept a me to criminal, civil, or administration	te to the best of my knowledge. m award. I am aware that any fa	I also provide the require lse, fictitious, or fraudule	d assurances** and agree to comply
✓ **I AGREE		*	•
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agency specific instructions.  Authorized Representative:			
Prefix: Mr.	*First Name: Phil		·
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*Last Name: Baughn			
Suffix:			
*Title: Chief Information Office	r		
*Telephone Number: 502-564-68		Fax Number:	
*Email: phil.baughn@ky.gov			
*Signature of Authorized Represent	ative:	Date Signed: 8	12 2010
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#### Statement of Kentucky

On behalf of the Commonwealth Office of Technology, I acknowledge the receipt of the recommendation for a revised award under the SBDD in the amount of \$3,213,717.

The anticipated outcomes expressed in our supplemental proposal of July 1, 2010 will be revised to reflect that we will not be able to undertake a computer ownership and digital literacy program as described at the present time. It may possible, at a later date, to do some form of limited ownership program given our internal computer hardware resources. The other aspects of our proposal, including continued mapping through 2014, regional/local team development, ongoing data collection and technical assistance to local communities can be carried out as planned.

NOTE: As noted in our proposal, we desire the opportunity to revise our total matching budget (current + recommended) to reflect the full effect of our proposed centralized planning group.

Attached please find a revised 424 and 424a reflecting the revised award recommendation

Thank you for your consideration of our proposal

Steve Landers

#### Steve Landers

Commonwealth Office of Technology Office of Enterprise Technology 101 Cold Harbor Drive Frankfort, KY 40601 Phone (502) 564-4792 steve.landers@ky.gov

# **COMMONWEALTH OF KENTUCKY**

# Commonwealth Office of Technology Supplemental Grant Proposal

For

# **State Broadband Data and Development Grant Program**

July 1, 2010

# Issued by

Office of the Chief Information Officer

Phil Baughn, State CIO 101 Cold Harbor Drive Frankfort Kentucky 40601 502 564 6480 phil.baughn@ky.gov

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## Background and Problem Statement - Commonwealth of Kentucky

The Commonwealth of Kentucky (Commonwealth), through the Commonwealth Office of Technology (COT), welcomes the opportunity to expand our efforts to strengthen broadband telecommunications services, with support from the American Recovery and Reinvestment Act of 2009 and the Broadband Data and Development Program. Increasing the access to and adoption of broadband services will build economic capital, strengthen public safety resources, improve living standards, expand educational and healthcare opportunities, and raise the levels of civic engagement and governmental transparency for Kentucky citizens and businesses.

In 2004, the Commonwealth began a mission to accelerate the growth of technology. The intent was to enhance support of community and economic development, improve healthcare, enhance education, and provide more effective government. In order to meet this mission, the Commonwealth entered into an agreement with an outside provider to create and maintain a statewide broadband map. At that time, Kentucky was one of the first states to have such a far-reaching initiative and was noted in many leading publications and by our fellow states as a leader in broadband deployment initiatives. Since 2007, our focus on broadband initiatives has waned as we have face growing financial challenges. But, these challenges should serve to make us more aware of the need to focus our attention on expanding our economic vision.

Earlier this year the Commonwealth was awarded funds through the SBDD program. Using these funds the Commonwealth began the first critical steps toward identifying the level of broadband availability throughout the Commonwealth through updated mapping. However, the information gathered through that process is only a start toward identifying the barriers that prevent so many Kentucky citizens from adopting broadband and reaping its benefits. The next phase of our effort will be to utilize the planning funds already awarded to do a comprehensive evaluation of the "broadband landscape" around the state and prepare us to establish a state-level broadband coordination and outreach entity. In addition, we expect to use that process to determine broadband usage, identify potential community partners and begin to identify areas of most need. The details of that evaluation process and the proposed use of those planning funds are outside the scope of this proposal and will be included in a forthcoming document revising our current planning narrative. However, that evaluation and preparation process and the information obtained through it will be a critical component of the grant proposal contained herein

To fully develop this vision, the Commonwealth of Kentucky must take these necessary steps to maximize the availability and usage of broadband by our citizens and businesses. Only by doing so, can the Commonwealth achieve its maximum potential in the digital economy of the 21<sup>st</sup> century.

## **Project Abstract**

Current Funding: \$2,088,762

The Commonwealth Office of Technology as the designated entity for the Commonwealth of Kentucky was awarded funds earlier this year for mapping and planning activities. Currently, we are in the process of collecting, validating and mapping broadband availability data from broadband providers around the state. Data is being collected at the census block level and for larger census blocks at a road segment level. In addition, COT was awarded funds that will be used to do evaluate and develop broadband plans in support of the projects identified below.

This proposal outlines four (4) areas of improvement essential to furthering broadband usage in the Commonwealth

# 1. Broadband Capacity Planning (State Level Coordination and Outreach)

Funds requested for this round of the grant will support the creation of a Kentucky Broadband Coordination and Outreach Team that will be responsible for directing and coordinating broadband research activities and outreach for the Commonwealth. Grant monies will build off existing state resources, and the cost of the operation of this group will form the in-kind match for the remainder of this proposal.

## 2. Expanded Commonwealth Data Collection and Mapping efforts through 2015

Kentucky is requesting \$1,813,717 for continued mapping for the remainder of this project life. This represents additional funds for Year 2 of the project and continued mapping in Years 3-5. Working with the mapping contractor, Kentucky is proposing regular updating of broadband data and additional funds for tasks such as wireless propagation collection, Wi-Fi hotspots and resellers as described in the proposal.

#### 3. Technical Assistance

Kentucky is requesting \$1,400,000 to develop/coordinate a statewide community network utilizing local/regional community organizations. In addition, funds will be utilized to develop and maintain updated research at the local level on trends in broadband adoption. Finally, these funds will be used to assist targeted local communities with implementation of the plans developed through this effort.

#### 4. Improved Computer Ownership

Kentucky is requesting \$600,000 to contract with a third-party entity to execute a computer ownership and digital literacy program. The goal of this effort is to increase and computer ownership and digital literacy for small businesses, non-profit and other organizations that may lack the resources to do this on their own. This program will be an outgrowth of our initial planning and technical assistance work to identify areas of the state and those entities with the greatest need and least resources for computer ownership, connectivity and/or technology training.

#### 424 Forms

The request 424 forms are accompanying this proposal. They are:

KY\_2\_SF424\_signed.pdf

KY 2 SF424-a1.pdf

KY 2 SF424B pg1.pdf

KY 2 SF424B\_pg2\_signed.pdf

## **Budget Detail**

The Commonwealth's Budget Detail for this grant proposal is outlined in the document named, KY\_3\_Budget\_Detail.xls, accompanying this proposal.

# **Budget Narrative**

The Commonwealth's Budget Narrative is outlined in the document named, KY\_4\_Budget\_Narrative.xls, accompanying this proposal. The narrative explains the various components that make up the total funds requested.

# **Letters of Support**

The Commonwealth has solicited and received several letters of support from major Commonwealth partners and stakeholders. Facsimiles of these signed letters of support are included in the document named KY\_6\_LettersOfSupport.pdf accompanying this proposal.

# **Broadband Capacity Building – Centralized Coordination and Outreach**

**FUNDS AWARDED:** None

FUNDS REQUESTED: No direct funds are being requested through this supplemental proposal to fund this entity. We propose that this group will be staffed with existing Commonwealth resources for this initiative and use the value of these resources and operational funding (provided by the Commonwealth) as matching for the requested grant funding. NOTE: The salaries, fringe benefits and travel expenses for year 2 of the operation of the group have been removed from the detailed budget due to overlap with the matching budget already approved. If approved, we will require an opportunity to revise our matching budget for year 2 to appropriately reflect our expected activities and costs in year 2

**PROBLEM**: The Commonwealth currently lacks a centralized group for broadband planning, leadership, management and control. A serious effort to integrate ourselves with a digital economy requires that we form a central state organization with the skills and resources needed to widen the availability and promote the usage of broadband technology across the state of Kentucky.

**SOLUTION:** The Commonwealth will form a state-level group to administer and coordinate research and other activities related to broadband deployment and adoption. Among the research activities the Commonwealth will conduct is to identify unserved/underserved areas of the state and the community anchor institutions. Other activities will include identifying barriers to the adoption of broadband and other information technology services, identifying available speeds for broadband connection in various regions, identifying and tracking areas with low levels of use and facilitating information exchange.

The Commonwealth intends to collaborate with state-level agencies, local authorities, businesses and non-profit organizations when possible throughout the process from the planning stage through the semi-annual updating of the maps. The Finance & Administration Cabinet will continue a collaborative effort involving state agencies, libraries, area development districts, county and municipal officials, and other representatives of public and private associations. The public and private stakeholder associations are actively solicited for input to the development and execution of broadband policy in the Commonwealth. Additional workgroups may be formed on a regional and/or local basis to address planning efforts as the broadband efforts become more granular.

Additionally, the Commonwealth is proposing various planning and research activities at the state and local levels. Among the research activities the Commonwealth will conduct is to identify un-served/underserved areas of the state and the community anchor institution. Other activities will include identifying barriers to the adoption of broadband and other information technology services, identifying available speeds for broadband connection in various regions, identifying and tracing areas with low levels of use, and facilitating information exchange.

**OUTCOMES AND BENEFITS**: The benefits and duties of this group will include but are not be limited to the following:

- Coordinate the efforts of local stakeholders, community organizations and existing public and private entities around the Commonwealth that currently work with local communities on their technology needs. This will provide for a single point of contact for the Commonwealth
- Develop a comprehensive strategic plan for broadband usage in priority locations around the Commonwealth and coordinate with partners throughout the state to implement and regularly update the plan.
- Support the efforts of both public and private entities within the Commonwealth to enhance or facilitate the deployment of, and access to competitively priced broadband access throughout the Commonwealth.
- Specifically work towards establishing affordable, accessible broadband services to underserved areas of the Commonwealth and monitor advancements in communication that will facilitate this goal.
- Advocate for, and facilitate the development and deployment of, applications, programs, and services including, but not limited to e-health initiatives and elearning that will bolster the usage of and demand for broadband level telecommunications.
- Serve as a broadband information and applications clearinghouse for the Commonwealth and a coordination point for broadband-related services and programs in the Commonwealth.
- Advise the Commissioner and Secretary on broadband adoption, deployment, and application issues.
- Serve as a resource for state policy makers to develop policies geared towards
  increasing and expanding high technology jobs and promoting development of a
  high technology workforce.
- Seek resources such as grants from government and nonprofit entities to promote the state's broadband/technology planning and development initiatives.

Another portion of the in-kind services that the Commonwealth can offer is the Division of Geographic Information (DGI). This division of the Commonwealth Office of Technology is responsible for encouraging, coordinating, and implementing GIS programs throughout the state. DGI works with state, regional, and local governmental entities, and serves as liaison to federal agencies. Activities include strategic planning, implementation services, technical and administrative support, dissemination of geospatial data, grant administration, research, and policy development. Many agencies throughout the Commonwealth use DGI's resources on a daily basis and stakeholders

have grown to expect that they will find the most current information available. Many stakeholders leverage the extensive GIS Base Data resources as a basic part of doing GIS or providing internet mapping applications to state workers or citizens.

**SBDD PURPOSE**: This is the most strategic component of the Commonwealth's broadband initiative and it will span the full life-cycle of the funds being requested through this proposal. This group will coordinate all current and future broadband related activities both in our current grant and this proposed grant supplement.

Broadband Program Chart: The Commonwealth has developed a program chart that attempts to provide a graphical synopsis of the entire initiative. This document accompanies the proposal as, KY\_Broadband\_ProgramChart.doc. If funding is granted, this chart will be revised regularly to show the technology, processes and behavior that the Commonwealth plans to implement or change throughout the life-cycle of the program.

## **Expanded Data Collection Integration, Verification and Display**

**FUNDS AWARDED**: The Commonwealth was previously awarded \$1,588,762 from SBDD for the purpose of broadband availability mapping in Years 1 and 2 of the project.

**FUNDS REQUESTED**: The level of additional funding being requested from the SBDD Grant Program for this project is \$1,813,717. The detailed budget and budget narrative for this project can be found in the attached budget documents

**Sum of Funding:** \$3,402,479

Currently Funded Activities: The current State Broadband Data and Development Grant Program funds were utilized to develop a statewide map of broadband service availability and use. Specific activities include project management, broadband provider outreach, data collection, verification and analysis; website and mapping application development; and semiannual maintenance updates and reporting. The project purpose is to determine where households have access, limited access, or no access to broadband, and to locate local anchor institutions, such as schools, hospitals, and libraries for broadband access or expansion. 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. This provider data was collected into a geographic GIS database and multiple techniques used to validate the data. Validation datasets were created from customized online public and targeted businesses and household, as well as field surveys. A web-based broadband mapping application is currently under development for the public to find broadband providers in their areas; visualize, query and print coverage and provider contact information; visualize, query and print technology types and speed of coverage; visualize cell tower locations and community anchor points; and allow input for public feedback regarding broadband coverage in their area. Semi-annual data maintenance and updates are currently planned for 2 years. The updates include data acquisition, aggregation, and validation processes. Data-loading processes and reporting functions have been automated to facilitate efficient data updates over the term of the project.

Amended/Supplemental Funding Request: The Commonwealth of Kentucky is requesting additional SBDD grant funding to support additional broadband data updates, including data collection, integration, and validation, and implementation of some Leading Practices for years two thru five of the SBDD program. The following narrative describes the proposed methodologies for data gathering, integration and validation for the requested funding.

**Data Gathering Methodology:** The data gathering methodologies deployed for the initial grant activities will continue to be utilized for the subsequent semi-annual updates, with the following proposed enhancements and leading practices implementation:

<u>Propagation Map/Wireless Coverage Generation</u> – For the wireless providers who have not submitted data, or have refused to participate, the Broadband Mapping Team will develop propagation models. For cooperating providers that simply do not have service

area information, towers and equipment information will be collected for propagation map development. Public source information and associated field surveys will be used to develop coverage area and speed tier data for non-cooperating wireless provider.

<u>Community Anchor Institution Outreach</u> – The Commonwealth had originally envisioned the Broadband Providers would supply the Community Anchor Institution (CAI) information that they service, but very little CAI information was actually received from the providers. Additional outreach directly to CAIs via various Commonwealth agency contacts and deployment of an online survey has been implemented to collect broadband subscription information directly from CAIs identified by the Commonwealth.

<u>Wi-Fi Hot Spot Mapping</u> – The Broadband Mapping Team will acquire and publish Wi-Fi hot spot locations within the Commonwealth of Kentucky on the public mapping website. Web scraping, as well as implementation of self-reporting mechanisms, will be utilized to gather the latest Wi-Fi hot spots in the Commonwealth.

<u>Provider Website URL Addition to Database</u> — The Broadband Mapping Team will research, store, and display URL links to the homepages of participating providers (and resellers if collection is approved in this grant application) in the enterprise GIS and public mapping website. This will provide enhanced marketing outreach for those providers who participate in the program and the public with immediate access to available broadband service providers at their location directly from the public website.

<u>Public Website Enhancements for Mobile Devices</u> — Enhancements to the public mapping website will be developed to provide access to the map information from mobile devices such as the iPhone, Blackberry, Droid, and one additional future mobile device. This will promote overall visibility of broadband adoption and usage within the Commonwealth of Kentucky.

<u>Public Website Enhancements (Next Generation Technology)</u> – In the span of the next 4 years, it is inevitable that web-based mapping application technologies will continue to evolve and provide enhanced functionality opportunities. To assure that the Commonwealth public mapping website keeps pace with technology advancements, the Commonwealth is requesting funding to establish a budget for future upgrades.

Geodatabase Submittal — An additional request from the NTIA for broadband data submittals in geodatabase format conforming to the NSGIC data model was made prior to the May 31, 2010 Commonwealth submittal. This submittal was migrated to the NSGIC v2 data model and submitted in both geodatabase and CSV file format. Future data submittals will continue to be migrated and delivered the soon to be NTIA adopted version of the NSGIC data model.

Speed at Census Blocks – For the semi-annual updating cycle, the Commonwealth of Kentucky Broadband Mapping Team will work with the NTIA and providers to collect the broadband speed data at the census block level, as well as increase provider provision of typical speed data. The availability of typical speed from public sources will also be investigated, acquired as available, and integrated into the broadband data mapping. In addition, the FCC speed test results and Form 477 information will be utilized as an additional source for validation of provider data and speed at the census block level.

<u>Provider Feedback Loop</u> – For the initial May 31 data submittal, provider feedback was solicited on the results of their data aggregation to the specifications defined by the NTIA NOFA Technical Appendix and subsequent clarifications. For the semi-annual updating cycle, aggregated data will continue to be distributed to the providers for verification/approval of their updated information. In addition, validation results will be communicated to the providers for feedback on service area, technology and speed inconsistencies.

Validation Confidence Rating Enhancement – The Commonwealth Broadband Mapping Team will continually perform evaluation and incorporation of independent broadband coverage datasets into the validation process to refine and improve confidence ratings for the broadband provider data. Customized GIS Analysis software will compare the Provider information at the census block or road segment level against each of the validation datasets. The results of this validation will then be input to a SAS statistical model to determine unit and provider confidence ratings to be communicated to the NTIA and Providers through the proposed provider feedback loop.

<u>Technical Assistance for Small Providers</u> – The Commonwealth Broadband Mapping Team will provide continued support to small broadband service providers to facilitate data submittal for the Broadband Mapping semi-annual updates. The plan is to provide on-line data tools through a Provider Data Updating Program to assist small providers who may not have GIS software or expertise. In addition, we will provide periodic webinar training sessions to assist with the use of the tools, as well as technical phone support.

Provider Data Updating Program – The current program for semi-annual data updates to the broadband mapping will be extended to years three through five as noted in the SBDD Grant Guidance. The current updating program will be supplemented with the proposed enhancements and leading practices described in the other section of this narrative and approved by the NTIA. In addition, a secure web-based application will be developed to simplify and automate the semi-annual data collection process for collecting and verifying data. The application will provide a series of data fields with multiple choice options, along with an easy-to-use mapping tool for updating a Provider's service area. It is the expectation that simplifying and automating the data collection process in this manner will facilitate and improve timely Provider response, data accuracy and consistency.

Broadband Provider Portal — A secure "one-stop" portal application will be developed and deployed for all broadband providers with features that include: 1.) Connection to an automated broadband data collection/updating application; 2.) Automatic email reminders of upcoming semi-annual data update submittals and other Commonwealth broadband related updates; 3.) Real-time provider data update tracking and reporting to the program/project management team, 4.) Online provider outreach "forum" for soliciting ideas and fielding comments, and 5.) An information site where applicable agency broadband planning information can be posted and accessed by participating members. It is expected that the portal site will improve Provider participation and facilitate the data updating process.

Resellers Inclusion – Outreach to Commonwealth Broadband Resellers will be performed and their data submittals will be aggregated into the Broadband Provider geodatabase compatible with the latest NSGIC model. The participating Broadband Reseller information will also be published on the public mapping website.

Processes for Data Integration: The current processes for integration of broadband provider data into the current mapping database will be utilized along with implementation of the data and process enhancements and leading practices described in the previous Data Gathering Methodology section. It is anticipated that development and deployment of the data collection and updating application and "one-stop" Broadband Provider Portal will significantly increase provider participation, expedite the update process and improve accuracy and consistency. These enhanced data integration processes will be utilized for the semi-annual data updates as extended to years three through five.

Verification Methodology: The current processes for validation of broadband provider data will be utilized along with implementation of the data and process enhancements and leading practices described in the previous Data Gathering Methodology section. In particular, the Validation Confidence Rating Enhancement will incorporate additional validation data sources and evaluation of the Broadband Provider data. Customized GIS Analysis software and statistical modeling will be utilized to improve confidence rating validity. These enhanced data validation processes will be utilized for the semi-annual data updates as extended to years three through five.

Leading Practices Implementation: The Commonwealth is proposing implementation of some Leading Practices, as defined in the SBDD Grant Guidance. These are described in the previous section of this narrative and include: 1.) Wi-Fi Hot Spot Mapping; 2.) Geodatabase Submittal; 3.) Speed at Census Blocks; 4.) Typical Speed Acquisition; 5.) Provider Feedback Loop; 6.) Validation Confidence Rating Enhancement; 7.) Technical Assistance for Small Providers; 8.) Resellers Inclusion

Address Data Collection/Improvement: Working closely with our current mapping contractor, The Kentucky Commonwealth Office of Technology (COT) developed a plan for development of an address layer as suggested as a Leading Practice in the SBDD Grant Guidance. The plan included three options for address data collection from the local county government agencies and integration into a state-wide address dataset. The plan included outreach to the counties and implementation of one of the following three options which are dependent on the availability and format of address data:

- 1.) Development of processing software that would export address information from County Computer Aided Dispatch (CAD) systems. The software or export service would be provided free to the interested counties which would benefit them as they developed their required yearly addressed centerline updates for the Office of the 911 Coordinator.
- 2.) Purchasing existing address point information from counties who would not participate in the first option.
- 3.) Purchasing tax parcel map and location address information from County Property Valuation Administrators (PVAs). This data would then be used to develop a rough

GIS parcel layer overlaid on orthophotography, auto generate property points, position address points to visible ortho physical evidence, and load OVA location address information.

Subsequent conversations with the Kentucky State Police (KSP) and Office of 911 Coordinator revealed several obstacles associated with address collection from the local counties such as being able to incentivize widespread participation, which they believed would be very difficult at best. In addition, the cost necessary to implement the proposed plan would be well outside the scope of the available funds/matching funds available in this program and could not be sustained in the long-term. Finally the following state population and household statistics developed from the census data does not seem to indicate a reasonable return on the investment for development of a state-wide address point dataset. Therefore, the cost of address-level data collection IS NOT included in the cost of this proposal at this time.

•	Number of census blocks greater than 2 sq. miles	5,396
•	Number of expected address points in blocks > 2 sq. miles	260,703
	(Summarized 2000 Census Household Data for blocks > 2 sq mi)	
•	Number of points currently located in state as a whole	299,769
•	Number of points currently located in blocks > 2 sq. miles	29,097
•	Estimated % of land area in non-located points in blocks > 2 sq. miles	41.19%
•	Estimated % of population in non-located points in blocks > 2 sq. miles	7.32%
	(Summarized block > 2 sq mi with no address point divided by summarized	ed blocks
	for state)	. *

#### **Technical Assistance**

**FUNDS AWARDED**: The Commonwealth has not received any previous funding from the SBDD Grant Program for this project.

FUNDS REQUESTED: The level of funding being requested from the SBDD Grant Program for this project is \$1,400,000.00. The budget forms that profile the Commonwealth's requested funding are included in the attached budget documents

**PROBLEM**: Much of the work that was done in the Commonwealth in the past to develop local coordination and obtain regularly updated data from the communities has languished due to lack of clear ownership for broadband leadership and funding.

**SOLUTION:** Research on broadband adoption, broadband use, and barriers to broadband adoption will help complete the picture of the Commonwealth's broadband landscape.

Once an initial evaluation has been completed and the state-level entity for coordination and outreach has been created, we must then turn our attention to building/re-establishing the community partnerships that once made Kentucky a leader in broadband promotion and adoption. In past years, these partnerships were developed around the Commonwealth by third-party entities working on behalf of the Commonwealth. These coalitions were instrumental in increasing the level of computer usage and determining broadband adoption. These past planning groups also developed strategic plans for their regions and communities that were, unfortunately, never implemented due to decreasing availability of funds.

The Commonwealth through its new broadband coordination entity must develop and/or restore these local/regional to develop regional planning teams. No single entity in or out of the state has the funds or resources to reach the communities in all our 120 counties on their own. These regional planning teams will be responsible for monitoring the concerns and needs of the communities in their areas and reporting to the Commonwealth. In addition, these teams will assist in the creation or updating of strategic plans for the communities that fit into the Commonwealth's strategic vision. We must develop these partnerships in order to identify the barriers to adoption in the local communities. One such potential partnering organization in the state is the Kentucky Regional Stewardship Program administered through the Council on Postsecondary Education. This program is housed at 9 of the state's universities assists local communities with their infrastructure, education and other knowledge-based needs.

Another important use of the technical assistance funds will be the development and maintenance of a process to obtain up-to-date information on the status of broadband adoption usage and surveys. This could be accomplished through the use of telephone and field surveys. Up-to-date information on the use of technology will be vital to state decision-makers as they develop implement a statewide strategic plan. In addition, to

assisting those organizations that have past experience working with broadband development, these funds will provide an opportunity to engage other organizations with community involvement.

Finally, it is envisioned that through the information gained from the initial planning evaluation and other uses of technical assistance funds that we would provide funds to local communities to assist them with the implementation of the strategic plans in their areas. We will assist the communities to set goals for improved broadband use and assist them in the development and implementation of strategic plans with measurable goals to improve broadband adoption and usage in the local communities. We believe that it will be most beneficial to target these funds in the areas of the state that are deemed by our evaluation and research to be have the most need for support in their broadband adoption efforts.

We have requested \$1,400,000 for these efforts although it is not known at this time what these efforts will cost. However, with 120 counties any work that involves a statewide effort of data collection and community outreach can be quite costly. One source indicated that a similar data collection effort in another state with similar characteristics cost \$800,000.

As with any solicitation or procurement managed by the Executive Branch, the solicitation development and contracts award process will be governed by the Commonwealth's purchasing laws and regulations and administered centrally by the Finance and Administration Cabinet. The Commonwealth maintains a suite of over 50 enterprise level IT contracts that were competitively bid. To expedite consulting service activities, the Commonwealth may use one or more of these existing contracts or issue a new solicitation for the technical assistance as needed. No personal service contracts or no-bid contracts will be used to acquire the technical assistance needed to support the state's broadband initiative.

The Commonwealth understands that this project proposal lacks some of the specificity that we would normally include in a formal proposal. It is our intention to lay the basic framework for our vision and apply for the resources needed with the intent of working with NTIA at a later date to provide the necessary details. Much more will be known once a complete evaluation of our current needs with broadband.

OUTCOMES AND BENEFITS: Once the broadband planning work has been completed, the Commonwealth will issue competitive solicitation/s to award sub-grants to assist in the various phases and tasks needed to implement and promote the technical assistance and collection activities outlined in the plan

**COST:** The grant funds requested for this project is \$1,400,000.00. This funding will ensure that skilled resources are available to assist Commonwealth resources in execution of the overall plan.

**SBDD PURPOSE**: The request/project relates directly to the opportunities outlined in the SBDD guidelines and if this funding is received it will be used in years 2011 - 2013.

## Improved Computer Ownership and Internet Usage

**FUNDS AWARDED**: The Commonwealth has not received any previous funding from the SBDD Grant Program for this project.

**FUNDS REQUESTED**: The level of funding being requested from the SBDD Grant Program is \$600,000. The budget forms that profile the Commonwealth's requested funding for this project are included in the attached budget documents.

**PROBLEM**: Even though preliminary mapping information indicates that the Commonwealth's broadband coverage is at 90%, the Commonwealth has a very low adoption rate in many areas of the state. While some of this problem can be attributed to technical issues, household educational levels, cultural issues and financial limitations are also a part of this problem.

**SOLUTION:** The Commonwealth will address the various areas identified in the problem statement above as follows:

<u>Technical Issues</u> — Work with connectivity providers to ensure greater coverage and if there is a possibility for reduced promotional connectivity rates for entities and citizens that are not currently connected, these promotional rates will be advertised to the areas of the state targeted by the planning and evaluation effort

<u>Education and Cultural Issues</u> – Many small businesses and citizens may not fully understand the importance of adopting the use of technology and how important access to the Internet will be to them and their family members. The Commonwealth will develop and outreach program and appropriate partners to promote awareness, access and training in the targeted areas and across the state.

Financial — The Commonwealth will utilize its own "off lease" computing equipment and other sources to provide workstations as well as contracted expertise in digital literacy training to provide entities such as small businesses and non-profit organizations in targeted areas with the tools necessary to fully enjoy the benefits of a digital economy. Sources may include refurbished workstations from expired lease arrangements and electronic recycling companies that sell refurbished equipment. The Commonwealth will also research the implications of the new tablet technology (IPad, windows tablets, etc.) with Internet access as another low cost device that can be used/promoted to shorten the gap in broadband access. This new tablet technology may be especially attractive to younger generations that are being driven to Internet usage through web availability of mobile devices.

The Commonwealth will also identify, map and promote locations in targeted portions of the state that provide free wireless access. These locations (libraries, schools, business establishment, etc.) will serve as a safety net for families that need access but do not have the financial means to obtain a workstation and Internet connectivity.

Kentucky's citizens, small businesses and non-profits deserve access to computers and high-speed Internet in order to compete in today's digital economy/world. This project further envisions the following:

- Provide refurbished computers and printers to small businesses, non-profit
  organizations, community centers and other entities in targeted areas that have
  few resources for adopting technology and acquiring training.
- Provide basic computing literacy training to enhance broadband adoption on an as needed basis for those entities that receive computers or for those that may already have computer hardware but lack the knowledge to use it effectively.
- Provide cybersafety training to encourage safe, secure and smart Internet use. One
  option for this training would be a partnership through the CyberSafeKY program
  with the Kentucky Office of Attorney General and the Kentucky Department of
  Education.
- Develop train-the-trainer cybersafety training model to spread the availability of cybersafety trainers in the targeted areas and across the state.
- Facilitate and promote community awareness events with attendance by local leaders and key members of the community that will agree to further promote the program.

**OUTCOMES AND BENEFITS:** If funding is made available, the Commonwealth will track and measure improvements in broadband availability, subscribership and use generated through the efforts of this project.

**COST:** The budget forms that profile the Commonwealth's requested funding for this project are included in the attached documents

**SBDD PURPOSE**: The request/project relates directly to the opportunities outlined in the SBDD guidelines and if this funding is received, it will be used in years 2012 - 2014

# **Project Integration – Strategic Planning and Smart Government Initiatives**

The Governor of the commonwealth of Kentucky lists the following items as essential to 'Putting Kentucky First':

- 1. Affordable Health Care affordable accessible health care to all Kentuckians, especially our children.
- 2. Energy Independence Kentucky must work toward energy independence not only for the security of our state and nation, but also that the energy sector offers tremendous economic opportunities for the state.
- 3. Clean and Ethical State Government bringing integrity and accountability to state government.
- 4. Transportation ensuring continued excellence and safety in highway design and construction while stretching limited transportation funds.
- 5. Quality Education ensuring every child in Kentucky has access to quality care from early childhood education though higher education.
- 6. A 21<sup>st</sup> Century Economy working hard to bring high-wage jobs to all parts of Kentucky, while focusing on Kentucky's strengths.

If funded, this money will be directly focused on items 1, 5 and 6. Broadband availability and usage is directly linked to the priorities established by the Governor.

In addition, the Governor and the Secretary of the Cabinet are sponsoring strategic planning and a new program called Smart Government Initiatives. These are process improvement efforts and over-arching planning activities that are led directly out of the Governor's office. If funding is made available for the Commonwealth's broadband initiative, this program will be integrated and blended with other strategic technology initiatives to ensure that duplication of effort is minimized and that top leadership attention is focused on the successful execution of this effort.

## Participation in the Digital Economy

The Commonwealth of Kentucky believes that it should commit itself to maximizing opportunities for all our citizens and small businesses to benefit from the digital economy. This is vital to ensure that we as a state are able to promote business productivity, global competitiveness and social well-being. The new economy ultimately will encompass all facets of our society and present us with unique opportunities to open up new methods and markets for engagement and growth. However, to fully integrate ourselves into the new economy we must take the steps necessary to achieve the maximum participation of all our citizens and businesses. This will require reliable, high speed infrastructure that is highly adaptable to meet the future technological needs of our citizens.

Our citizens increasingly desire to have access to broadband for e-commerce to pay for goods and services and deserve access to high quality health care and diagnosis information that would have previously required large investments of time and expense. The internet is now one of the most common ways that citizens make contact with government. It increases participation in government. Through the use of email and web interaction, citizens can now interact with government organizations and leaders in ways that would have previously required hours of driving to the state capital. Because of this increased interaction we have a responsibility to develop technological applications that deliver services to our citizens. In turn, an increase in the desirability of broadband services will lead to an increased demand for broadband and spur adoption.

Our businesses desire the opportunity to expand their markets and make their operations more efficient, which will lower costs for all of us.

For education, this new economy provides unprecedented opportunities to learn from distant universities that were heretofore inaccessible to potential students and provides the ability to collaborate and participate through online video sharing.

Developing a digital economy requires action by all portions of the Commonwealth. Government, industry and communities must all work together for the common good. We believe that our primary role in developing the digital economy should be as an enabler helping individuals, households and businesses to take up the opportunities the digital economy provides. In that role, we should facilitate the building of digital infrastructure, expansion of innovation and education in digital literacy thereby creating an economic environment that is conducive for providers and other technological businesses to conduct business in the Commonwealth.

Like many states, we are facing many financial challenges but these challenges present the perfect opportunity to promote long-term economic growth by investing our resources into increasing the availability and use of technology.

The opportunities afford by this program and the proposal contained here represent the Commonwealth of Kentucky's commitment to take the first key steps to ensuring that our

citizens and businesses have access to the tools and resources needed to make Kentucky a leader in the  $21^{\rm st}$  century digital economy

**End of Proposal**