

<b>Application for Federal Assistance SF-424</b>		Version 02			
<table border="0"> <tr> <td style="vertical-align: top;"> <p>* 1. Type of Submission:</p> <input type="checkbox"/> Preapplication  <input checked="" type="checkbox"/> Application  <input type="checkbox"/> Changed/Corrected Application </td> <td style="vertical-align: top;"> <p>* 2. Type of Application:</p> <input checked="" type="checkbox"/> New  <input type="checkbox"/> Continuation  <input type="checkbox"/> Revision </td> <td style="vertical-align: top;"> <p>* If Revision, select appropriate letter(s):  <input type="text"/>  <p>* Other (Specify)  <input type="text"/></p> </p></td> </tr> </table>			<p>* 1. Type of Submission:</p> <input type="checkbox"/> Preapplication <input checked="" type="checkbox"/> Application <input type="checkbox"/> Changed/Corrected Application	<p>* 2. Type of Application:</p> <input checked="" type="checkbox"/> New <input type="checkbox"/> Continuation <input type="checkbox"/> Revision	<p>* If Revision, select appropriate letter(s):  <input type="text"/>  <p>* Other (Specify)  <input type="text"/></p> </p>
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<p>* 3. Date Received:  <input type="text" value="08/12/2009"/></p>		<p>4. Applicant Identifier:  <input type="text"/></p>			
<p>5a. Federal Entity Identifier:  <input type="text"/></p>		<p>* 5b. Federal Award Identifier:  <input type="text"/></p>			
<b>State Use Only:</b>					
<p>6. Date Received by State: <input type="text"/></p>		<p>7. State Application Identifier: <input type="text"/></p>			
<b>8. APPLICANT INFORMATION:</b>					
<p>* a. Legal Name: <input type="text" value="Indiana Office of Technology"/></p>					
<p>* b. Employer/Taxpayer Identification Number (EIN/TIN):  <input type="text" value="356000158"/></p>		<p>* c. Organizational DUNS:  <input type="text" value="6266647210000"/></p>			
<b>d. Address:</b>					
<p>* Street1: <input type="text" value="100 North Senate Avenue"/></p> <p>Street2: <input type="text" value="Indiana Government Center N551"/></p> <p>* City: <input type="text" value="Indianapolis"/></p> <p>County: <input type="text"/></p> <p>* State: <input type="text" value="IN: Indiana"/></p> <p>Province: <input type="text"/></p> <p>* Country: <input type="text" value="USA: UNITED STATES"/></p> <p>* Zip / Postal Code: <input type="text" value="46204"/></p>					
<b>e. Organizational Unit:</b>					
<p>Department Name: <input type="text"/></p>		<p>Division Name: <input type="text"/></p>			
<b>f. Name and contact information of person to be contacted on matters involving this application:</b>					
<p>Prefix: <input type="text"/> * First Name: <input type="text" value="James"/></p> <p>Middle Name: <input type="text"/></p> <p>* Last Name: <input type="text" value="Sparks"/></p> <p>Suffix: <input type="text"/></p> <p>Title: <input type="text"/></p> <p>Organizational Affiliation:  <input type="text"/></p> <p>* Telephone Number: <input type="text" value="317-234-5889"/> Fax Number: <input type="text"/></p> <p>* Email: <input type="text" value="jsparks@iot.IN.gov"/></p>					

**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:**

CFDA Title:

**\* 12. Funding Opportunity Number:**

0660-ZA29

\* Title:

Recovery Act - State Broadband Data and Development Grant Program

**13. Competition Identification Number:**

Title:

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

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

Mapping Indiana Broadband

Attach supporting documents as specified in agency instructions.

Add Attachments

Delete Attachments

View Attachments

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**16. Congressional Districts Of:**  
\* a. Applicant  \* b. Program/Project

Attach an additional list of Program/Project Congressional Districts if needed.

**17. Proposed Project:**  
\* a. Start Date:  \* b. End Date:

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

* a. Federal	<input type="text" value="3,355,400.00"/>
* b. Applicant	<input type="text" value="0.00"/>
* c. State	<input type="text" value="671,080.00"/>
* d. Local	<input type="text" value="0.00"/>
* e. Other	<input type="text" value="0.00"/>
* f. Program Income	<input type="text" value="0.00"/>
* g. TOTAL	<input type="text" value="4,026,480.00"/>

**\* 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:  \* First Name:   
 Middle Name:   
 \* Last Name:   
 Suffix:   
 \* Title:   
 \* Telephone Number:  Fax Number:   
 \* Email:   
 \* Signature of Authorized Representative:  \* Date Signed:

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**\* Applicant Federal Debt Delinquency Explanation**

The following field should contain an explanation if the Applicant organization is delinquent on any Federal Debt. Maximum number of characters that can be entered is 4,000. Try and avoid extra spaces and carriage returns to maximize the availability of space.

**Indiana Broadband Mapping - Program Narrative**  
**Opportunity No. 0660-ZA29**  
**Submitted by the State of Indiana, Indiana Office of Technology**

In fulfillment of the application procedures for the National Telecommunications and Information Administration (NTIA) State Broadband Data and Development Grant Program 0660-ZA29, the Indiana Office of Technology, authorized by Governor Mitch Daniels, Jr. of Indiana as the single eligible entity to receive a grant under this program, submits this program narrative for the State of Indiana.

Our plan to acquire additional data, and the processes we will be using to create and maintain a broadband map, are practical, reliable, and repeatable. Our approach involves three phases.

Phase 1 – Initial Build. Initially, we will use data that is “in-hand” or immediately available to deliver a first set of mapping data should be collected by November 1, 2009, and to substantially complete that data before February 1, 2010. We will collect and organize available information from a wide variety of sources and digitize those data that are in hardcopy format. We will then geoprocess the various boundary geometries to transfer attributes to the individual addresses contained within those boundaries, verify the data, and deliver a substantially complete product to NTIA.

Phase II – Data Refinement. In a second phase, we will use the remaining time of the five-year project to identify data deficiencies and work to eliminate those deficiencies. In particular, we plan to engage the service provider community beginning with a series of eight to ten regional information sessions, and continuing over the term of the project using other outreach methods and channels. In addition, we will work with a local university to collect consumer level information using a web-based application. This data will be useful to fill data gaps and to verify information obtained from the broadband service providers. This verification is one of several methods we plan to use, including “boots on the ground,” source document correlation, inspection of aerial photography, and direct contact with the service provider community.

Phase III - Maintenance. As a final phase, after processes and data exchange practices have been established, we will periodically update the broadband mapping information. These updates will occur as information is provided, but twice each year as a minimum, according to the requirements for update as specified in the NOFA.

We believe that this three-phase approach satisfies both short and long term project objectives.

**Indiana Broadband Mapping - Program Narrative**  
**Opportunity No. 0660-ZA29**  
**Submitted by the State of Indiana, Indiana Office of Technology**

In fulfillment of the application procedures for the National Telecommunications and Information Administration (NTIA) State Broadband Data and Development Grant Program 0660-ZA29, the Indiana Office of Technology, authorized by Governor Mitch Daniels, Jr. of Indiana as the single eligible entity to receive a grant under this program, submits this program narrative for the State of Indiana.

## **Executive Summary**

Broadband is an essential component of e-commerce and economic development. According to high-tech market research firm IN-Stat, "By 2011, total worldwide broadband subscribers will number 567 million, almost double the current [2007] 285 million subscriber base." Even with such a high rate of adoption, however, not all areas in Indiana or in the nation have access to high speed broadband. For these reasons, the National Telecommunications and Information Administration (NTIA) issued a Notice of Funds Availability (NOFA) on July 1, 2009 for the State Broadband Data and Development Program. Through this NOFA, the NTIA expects to grant \$240 million to states for the development and maintenance of state broadband mapping.

The timelines outlined in the NOFA are ambitious:

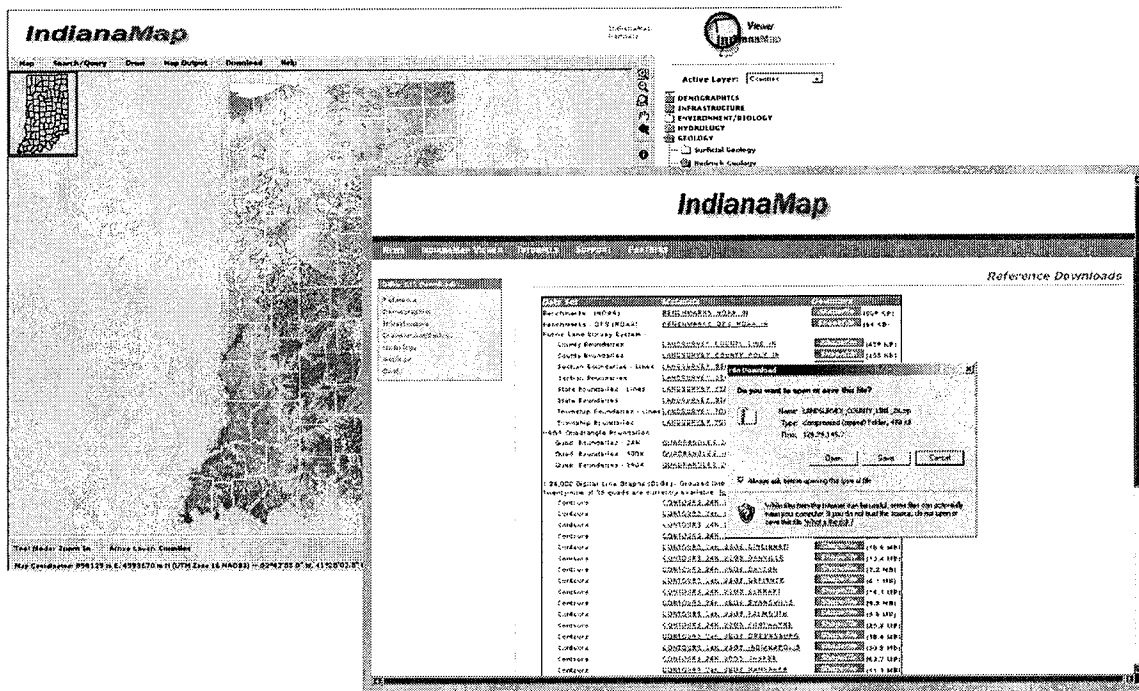
- Grant applications must be submitted by August 14, 2009.
- The first set of mapping data should be collected by November 1, 2009, and the
- Broadband mapping projects should be substantially completed before February 1, 2010.

Meeting these tight delivery dates will be challenging, and will require 1) a high level of cooperation among project partners, 2) rich "in-hand" data of a type and accuracy to satisfy the NOFA requirements, 3) a practical plan to acquire data that is not immediately available, and 4) a dependable and repeatable process to create and maintain the broadband maps. Fortunately, these critical elements are in place in Indiana to create maps to serve as the planning foundation for justifying broadband expansion projects. These maps must be high-quality and ultimately depict broadband availability, technology, speed, and infrastructure.

The State of Indiana is well positioned to respond to this information need. We have assembled a broadband mapping workgroup with representatives from the Office of Governor Daniels, Indiana Utility Regulatory Commission, Office of Utility Consumer Counselor, Office of Community and Rural Affairs, Indiana Finance Authority, Indiana Office of Technology, Indiana Geographic Information Office, the Indiana Geographic Information Council (a non-profit statewide GIS coordination organization), and Indiana Economic Development Corporation (the legislated steward of broadband maps).

This group will provide general oversight of project activities for the life of this project. In addition, other supporting organizations will add value to the project. For example, the Indiana

Business Research Center will contribute detailed demographic data and the Indiana Geological Survey will publish the public broadband data that results from this project, as appropriate, as part of the 200-plus statewide GIS data layers that comprise the IndianaMap, a web-based map viewer and download tool accessible by the public. The high level of cooperation between and among these agencies, offices, and organizations is perhaps our greatest asset.



In addition to the data-rich IndianaMap, the State also has significant broadband data. The sources of this information include:

- The Indiana Utility Regulatory Commission (broadband data)
- Office of Utility Consumer Counselor (broadband data)
- The Indiana Business Research Center (demographic data)
- Indiana Department of Local Government Finance (residential versus commercial status by address)
- Indiana Counties (point addresses, land parcels, road centerlines with address ranges, and administrative boundaries, aggregated and integrated into the IndianaMap)
- Indiana Department of Natural Resources (State forests and parks)
- Indiana Department of Homeland Security (locations of emergency medical service (EMS) stations, fire stations, and hospitals),
- Department of Education (school locations),
- Indiana Libraries (point of connectivity for low income/unemployed consumers—provide vital speed information for respective geographical locations)
- Commission for Higher Education (locations of colleges and universities), and others.

**It should be noted that all of the information that will be used from these sources is in the public domain, and is not subject to terms of a non-disclosure agreement.**

Our plan to acquire additional data, and the processes we will be using to create and maintain a broadband map, are practical, reliable, and repeatable. Our approach involves three phases.

Phase I – Initial Build. Initially, we will use data that is “in-hand” or immediately available to deliver a first set of mapping data should be collected by November 1, 2009, and to substantially complete that data before February 1, 2010. We will collect and organize available information from a wide variety of sources and digitize those data that are in hardcopy format. We will then geoprocess the various boundary geometries to transfer attributes to the individual addresses contained within those boundaries, verify the data, and deliver a substantially complete product to NTIA.

Phase II – Data Refinement. In a second phase, we will use the remaining time of the five-year project to identify data deficiencies and work to eliminate those deficiencies. In particular, we plan to engage the service provider community beginning with a series of eight to ten regional information sessions, and continuing over the term of the project using other outreach methods and channels. In addition, we will work with a local university to collect consumer level information using a web-based application. This data will be useful to fill data gaps and to verify information obtained from the broadband service providers. This verification is one of several methods we plan to use, including “boots on the ground,” source document correlation, inspection of aerial photography, and direct contact with the service provider community.

Phase III - Maintenance. As a final phase, after processes and data exchange practices have been established, we will periodically update the broadband mapping information. These updates will occur as information is provided, but twice each year as a minimum, according to the requirements for update as specified in the NOFA.

We believe that this three-phase approach satisfies both short and long term project objectives.

Since this project will take great advantage of the GIS software, technical infrastructure, rich geospatial data assets, and personnel expertise that is in place in Indiana, it is appropriate to present some highlights of how GIS has developed in Indiana.

- In December 1997, the Indiana Association of Soil and Water Conservation Districts called a meeting of various county, state, and federal agencies, as well as private companies known to have active GIS programs or interests. The goal of this meeting was to determine how funding could be generated to produce statewide digital orthophotography. The group that had assembled decided to continue meeting with a goal of implementing statewide GIS coordination. This effort became known as the Indiana Geographical Information Systems Initiative (INGISI).
- In 1998, thirty-nine government, academic and industry representatives signed the Indiana GIS Initiative Commitment to Success, formally endorsing the broad principles



of INGISI. Initial funding was provided by grants from the Federal Geographic Data Committee and the Indiana Land Resources Council.

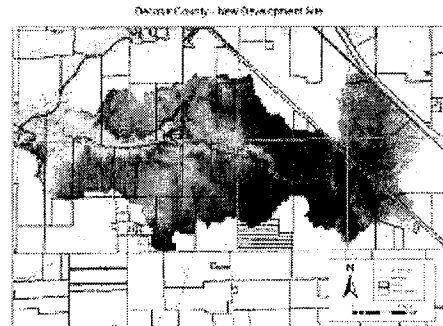
- In the early 2000's support swelled, and the Indiana Geographic Information Council (IGIC) was formed to administer activities and provide a formal structure. IGIC is served by an elected Board of Directors, a representative council of over a dozen sectors utilizing GIS. IGIC was recognized by Governor's Proclamation as a statewide GIS coordinating body in 2000, and adapted to the responsibility by formally incorporating as a 501(c)(3) non-profit corporation.
- In 2004-6, the Indiana GIS Initiative was dissolved, and membership in IGIC was formalized. Today there are over 300 individual, corporate, and institutional members.
- At about the same time, the Indiana Department of Transportation created a public website to share the dozens of geospatial data layers that had been collected to study potential southwest Indiana corridors for a major road project. This was the birth of the IndianaMap that has since grown in terms of capability as well as data. Well over 200 geospatial data layers are available for viewing and/or download from the IndianaMap.
- On October 29, 2005, the Indiana State Government GIS Center of Excellence was formed by way of a Memorandum of Understanding that brought together the Indiana Office of Technology, Department of Homeland Security, Department of Natural Resources, Department of Health, Department of Transportation, and the Department of Environmental Management to “leverage existing GIS investments and resources within the State to meet the current and future needs of state government, as well as to provide support and guidance to all state agencies in the use of GIS.”
- High resolution statewide color aerial photos taken in spring, 2005 as part of the Statewide Orthophotography Project were added to the IndianaMap. On the first day the site had 23,000 unique visitors and 450,000 page views. These photos can be downloaded by the public without cost from Indiana University Information Technology Services website which averaged about 50,000 requests per month in 2007.
- On July 1, 2007, a state Geographic Information Office was created by Indiana Code 4-23-7.3 to coordinate GIS activities statewide, and specifically, to:
  - Facilitate GIS data cooperation among units of the federal, state, and local governments;
  - Integrate GIS data and framework data developed and maintained by state agencies and political subdivisions into the statewide base map;
  - Acquire, publish, store, and distribute GIS data;
  - Coordinate with state educational institutions to promote formal GIS education opportunities and informal GIS learning opportunities throughout Indiana.

- Beginning in June of 2008, 72 of Indiana's 92 counties have voluntarily committed to provide four critical GIS data layers to the State and IndianaMap: land parcels, point addresses, local road centerlines with address ranges, and local administrative boundaries. These data are transferred through web feature services (WFS) to a processing server within Indiana State government where they are "homogenized" to one standard and integrated to create statewide data layers. Because of the enormous value of these statewide layers, not the least of which is the value they bring to this project, we anticipate eventual participation of all 92 counties.

This long and successful history of GIS in Indiana, in combination with our high level of cooperation and collaboration among project partners, and a practical, repeatable project plan will contribute to the success of this project through the 5 -year term of the project and beyond.

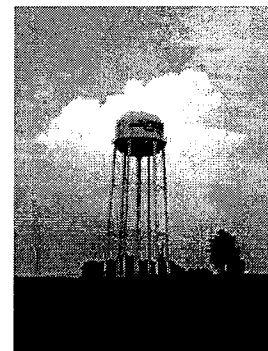
In fact, broadband and GIS assets have collectively resulted in some significant successes in Indiana already. When Honda officially announced Decatur County, Indiana would be the home of a new automotive plant, the county had less than two years to prepare. The new plant would cover 1 million square feet; sit on a 1,700 acre tract; and employ 2,000 people. Its sheer size, combined with an accelerated construction schedule (existing homes on the site were being moved less than 3 months after the official announcement), meant the County faced the immense challenge of responding to numerous information requests in a short period of time. There were parcel research requests for utility easements, widening of roads, property surveys, zoning, and more. And, importantly, Honda made it clear that broadband availability was a priority.

Fortunately, a site was found to which broadband service was available. Decatur County had integrated much of their data into a Geographic Information System (GIS). By the time of the announcement that Honda was looking for a new plant site, many State and County entities were already engaged: the County Auditor, Assessor, Clerk and Recorder's Offices, as well as the Indiana Department of Transportation, Area Planning, and E9-1-1 entities. Each was using the GIS data as part of their normal daily functions. In addition to fielding requests through the coordinated onsite system, the County's GIS website was released to the public. It proved to be a solid way of transferring information to constituents, as it allowed the public to obtain information from the GIS without formal training.



The result? The availability of high speed broadband service and Decatur County's investment in GIS paid off. The Honda plant came to Greensburg in Decatur County. The \$550 million auto assembly plant, as Indiana Governor Daniels stated, will be seen as the place where Indiana's economic comeback began.

Broadband and GIS converged to create another Indiana success story. In recent years, rural areas have had difficulty obtaining high-speed internet, which is now being regarded as a basic utility like electricity or water. When the City of Scottsburg found that private



telecommunications providers were unwilling or unable to provide broadband service, the challenge of finding a workable solution was taken up by City staff.

The utility began deploying a broadband network using satellite dishes and antenna located throughout the county, including on water towers. The parabolic antennas used for distant links have extremely narrow beams and have to be very close to alignment to even get a base signal to tune in. So the utility turned to orthophotography - aerial photography that has been corrected for the curvature of the earth - to help.

Before the orthophotography, staff would map the direction of the link on paper, drive to that location in order to establish landmarks and determine which direction to point the antenna. With orthophotography, staff can simply map the tower locations, draw a line between them and look at the photos for landmarks such as barns, silos, forest breaks, etc.

Orthophotography has also been useful in determining a rural customer's ability to receive a signal. Jim Binkley of Scottsburg Electric relates, "A customer was listed as a 'NO-GO' due to their location in an area that had seen a couple other unsuccessful site surveys. By entering the GPS of the potential customer and drawing a line to an area tower, it was plain to see the heavy tree cover in the area was negated by the alignment of two agricultural fields. This potential customer was then scheduled and as a direct result of the orthophotography the word 'potential' can now be removed and the word 'new' inserted beside the 'customer'."

"Elevations are also of great importance," Mr. Binkley continues. "While trees may weaken the signal, dirt kills it. Knowing the elevation of a potential customer before we visit allows us to schedule the use of our bucket trucks to minimize wear and tear on equipment."

The results: the network now provides broadband access to more than 90% of the county's residents, Scottsburg has over 35 towers providing service to 8 rural counties. Two major local employers had threatened to relocate if they could not obtain high-speed access – both now remain.

The foregoing success stories are important to recount. However, there is work yet to be done. Our belief is that broadband in Indiana is largely built out to the limits of technology, that is, it is offered to almost every address passed by cable. In addition, virtually every Incumbent Local Exchange Carrier (ILEC) central office is equipped with a Digital Subscriber Line Access Multiplexer (D-SLAM). However, there are still areas where certain customers are outside the 3-mile/18,000-foot copper limitation for DSL services. Short of door-to-door "boots on the ground" inspection, which is not economically feasible for more than data verification, it is only through broadband mapping that remaining unserved and under served areas can be identified and addressed in Indiana.

**We are requesting a total of \$3,355,400 to accomplish the work of this project.**

## **1. Data**

### **(a) Data Gathering**

The strategy of our three-phase approach is to begin with data that is in-hand or is immediately available, and improve upon it in subsequent phases. In Phase I, we will build a substantially complete data listing as defined in “1. Broadband Service Availability in Provider’s Service Area,” and “4. Community Anchor Institutions” in the technical appendix of the NOFA. This data, aside from being readily available, is in the public domain. Phase I will also capture, in part, “3. Broadband Service Infrastructure in Provider’s Service Area,” part “(b) Middle Mile and Backbone Connection Points.”

In Phase II, we will then refine, complete, and otherwise improve the initial data listing over the remainder of the five-year period of the project with additional service provider information. We anticipate that this longer time interval will be helpful requesting and securing information from service providers, especially for any data requiring Non Disclosure Agreements (NDAs). The use of any secure or confidential broadband information will require back-office operations to aggregate, verify and edit our public broadband mapping data layers. As such, non-disclosable data will not be available through our public-facing IndianaMap portal. We also expect that a national conversation will take place through this time period about the tension between proprietary data and public data with regard to information obtained from the broadband service providers, and that this project will benefit from the evolution of that conversation.

As mentioned, periodic updates will occur at least twice per year as Phase III tasks.

For Phase I, the data that is in-hand will be obtained largely from State agencies, much of which has been made available to them from broadband services providers, but also directly from the service providers or their trade associations. These data include:

Data Description	Data Source(s)
Wire Center Boundaries	IURC
Cable Service Areas (cable video boundaries are fully mapped)	IURC
Electric utility service area boundaries (useful for looking at smart grid)	IURC
Estimated Broadband Availability and Subscribership	Indiana Utility Regulatory Commission
Provision of Broadband Connection Services to End-User premises or Subscribers - Residential (Reported by Information Transfer Rate and ZIP Code)	Indiana Utility Regulatory Commission
Provision of Broadband Connection Services to End-User premises or Subscribers - Non-residential (Reported by Information Transfer Rate and ZIP Code)	Indiana Utility Regulatory Commission
Asymmetric vs Symmetric DSL	Indiana Utility Regulatory Commission
Service provider by zipcode	Indiana Office of Utility Consumer Counselor (OUCC)
Metropolitan Statistical Area (MSA)	FCC, Wireless Division
Wireless Broadband Service Providers	Indiana Office of Utility Consumer Counselor (OUCC)
Wireless Broadband Towers	Indiana Department of Homeland Security; IndianaMap, Statewide Orthophotography
Middle Mile and Backbone Connection Points	Indiana Fiber Network
FCC Form 477*	FCC
Location of large plants and businesses	Indiana Manufacturing Association; Indiana Chamber of Commerce
Statewide Orthophotography (2005 high resolution leaf-off and 2008 leaf-on)	IndianaMap; University Information Technology Services (UITS); Indiana University
Statewide Point Addresses	IndianaMap; Indiana Counties
Statewide Road centerlines with address ranges	IndianaMap; Indiana Counties
Statewide land parcels	IndianaMap; Indiana Counties
Emergency Medical Service (EMS) stations	Indiana Department of Homeland Security; IndianaMap
Fire stations	Indiana Department of Homeland Security; IndianaMap
Hospitals	Indiana Department of Homeland Security; IndianaMap
K-12 and college/university locations	Indiana Department of Education; Commission for Higher Education
Census Data**	U.S. Census; Indiana Business Research Center
Land Use Code (residential, commercial, exempt)	Indiana Department of Local Government Finance
* Use of FCC Form 477 for this purpose is currently under consideration	
** 2010 Census data may be available in Phase II	

We recognize that these data do not have common geometries and that the native geometries and formats (service areas, Zip code boundaries, census blocks, ERSI shapefiles, hard copy maps, databases, etc.) do not match the requirements contained in the technical specification. We will, therefore, geo-process these data using GIS software tools to transfer relevant data values from the various geographies to address level to satisfy the ultimate mapping goal of this project which is to search for broadband availability by address. These tools are available as part of the State GIS technical infrastructure.

While the process used in Phase II to gather and process data will be much the same as Phase I, we anticipate that the amount of data provided by the service providers will increase. We will facilitate the collection of information from the broadband service providers in Phase II by meeting with them and their trade association representatives through a series of eight to ten regional information sessions in which the broadband mapping project will be explained in detail to provide an understanding of how the data will be used and to give assurances regarding confidential data.

#### **(b) Accuracy and Verification**

We will validate the collected data for completeness, currency, and accuracy using a variety of methods that include:

**“Boots on the ground” inspection.** We will visually inspect the existence of physical features, where feasible, of a sample size sufficient to verify that service could exist in a specific location.

**Inspection of high-resolution orthophotography.** High-resolution orthophotography will be used to verify the existence and location of wireless towers. Where recent six-inch resolution orthophotography exists (cities and counties), it can also be used to verify the existence of residence connection boxes.

**Comparing source documents that duplicate geographies or content.** We recognize that within the above list of data sources, some information is duplicated. In these cases, discrepancies will be noted for follow-up using other verification methods listed here.

**Collecting end-user data.** We will work with The Polis Center at Indiana University Purdue University Indianapolis to create a Google Map-based, user-friendly web application hosted on the IndianaMap portal to collect information from end-users about their location, broadband service provider, and speed (as captured from a speed test). The information collected from this website will be valuable for data verification. The Polis Center works with communities in Indiana and beyond to develop and apply knowledge, to build collaborations, and to find innovative solutions to common problems. The center excels in community-based research and advanced information technologies, especially geographic information systems (GIS).

**Using service providers’ websites,** especially those that contain service area information. Many service providers have websites that give service area information (often address by address) to assist consumers. We will use these websites in conjunction with “boots on the ground” and the other methods listed here to verify the data.

### **(c) Accessibility**

In Indiana, we take pride in the amount of geospatial data that is available to the public for viewing and download. For example, the IndianaMap ([www.indianamap.org](http://www.indianamap.org)) provides well over 200 statewide data layers and an easy-to-use-map viewer. Most of those layers are also available to the public for download along with FGDC compliant metadata. The IndianaMap portal is our State's clearinghouse for geospatial data, and directly feeds the USGS National Map program and the Geospatial One Stop (GOS). Additionally, both Microsoft Bing and Google Map/Earth use the IndianaMap statewide orthophotography in their public mapping applications. In addition to using the public-facing IndianaMap Viewer to provide access to Indiana's public broadband mapping data, we will also provide access to this map data over the Internet using OGC-compliant Web Map Service (WMS), Web Feature Service (WFS), and the ESRI shapefile format for layer downloads.

In addition, to support Indiana's analysis, presentation, and distribution needs, the Indiana Geographic Information Council will provide hosting and access to the new broadband mapping data through custom web mapping mash-ups (interactive broadband maps embedded in a standard web page using Web 2.0 API technology from providers like Google, Bing, ESRI, Adobe, etc...) to increase public access, visibility, transparency and feedback of Indiana's broadband mapping initiatives.

Also, the Indiana State Data Center, as part of the State Library, and the Indiana Business Research Center make data of interest, including geospatial data, available to the public. Each of these organizations is especially adept at presenting complex spatial data clearly to a wide public audience.

The broadband service availability maps that will be produced by the work of this project will be provided to these organizations for their analysis, presentation, and distribution to the public.

### **(d) Security and Confidentiality**

Data that is determined to be confidential or sensitive, and protected by State and Federal Open Records will not be disclosed to the public, and will be secured behind the Indiana Office of Technology firewall and protected by the processes and tools put into place by that office. The State understands the importance of protecting confidential information and has an excellent record in that regard.

Where necessary, Non Disclosure Agreements will be executed with data providers. We will be alert to the formulation of NDA "best practices" and consensus as a result of the continued national discussion about data confidentiality versus freedom of information.

Likewise, we will work with our Indiana Public Access Counselor (<http://www.in.gov/pac/>) to make sure that we have a legal basis for all actions with regard to protection of confidential information used for back-office operations and disclosure of public information.

## 2. Project Feasibility

### (a) Applicant Capabilities

We are requesting a total of \$3,355,400. The following line items are shown by project phase and are explained in detail in this section. These line items are also contained in the spreadsheet provided at the end of this section and attached as a separate supporting document to the Grants.gov submittal package (mappingINbroadband.xls).

#### Phase I - Initial Build

- **Project Management:** This task accounts for the time involved with the overall management of the project and is calculated as 10% of the human resource cost for this phase. (\$36,472)
- **Application Development:** This line item covers the cost of developing the web application that will be used to capture end user location, identify of service provider, and broadband speed. (\$25,000)
- **Geospatial Data Processing:** This effort involves the digitization of hard copy maps and the transfer of attributes from GIS boundaries to individual address points provided by Indiana counties. We expect to use a GIS service provider for this work and have used an hourly rate reflective of that expectation. (\$175,000)
- **Data Collection:** Data collection will be done by a variety of people ranging from agency staff to student interns, to contracted help. A blended rate of \$65 per hour was used for cost calculation. (\$13,000)
- **Data Verification:** Like data collection, this work will be performed by a variety of people. (\$13,000)
- **Data Publication (Data Center):** These funds will be used by the State Library's Data Center to make the results of this project available to the public. (\$9,000)
- **Data Storage/Management/Distribution (IGS):** This line item is related to managing and distributing the project results as part of the IndianaMap by the Indiana Geological Survey. (\$75,000)
- **Data Storage/Management/Distribution (UITS):** These funds will support the work of the University Information Technology Services group at Indiana University to continue to make aerial photographs available for analysis throughout the project. (\$16,000)
- **Data Publication and Outreach (IGIC):** The Indiana Geographic Information Council will be an indispensable partner involved with providing an addition channel of distributing the project results to the public, and to support outreach efforts with project partners and collaborators throughout the life of the project. (\$18,720)



This Phase I task also includes an additional \$33,800 for hardware and software to stand up a server for data distribution, detailed as follows:

- Linux Virtual Server (dual-core)      \$2,000
  - Linux Setup and Admin                      \$6,800
  - ArcGIS Server (State rate)                \$25,000
- Data Visualization (IBRC): The Indiana Business Research Center is especially adept at clearly presenting complex information. We will take advantage of these skills to prepare meaningful and understandable maps and other data that result from this project. (\$20,000)

### **Phase II - Data Refinement**

- Project Management: (\$24,206)
- Geospatial Data Processing: (\$100,000)
- Data Collection: (\$19,500)
- Data Verification: (\$13,000)
- Data Publication (Data Center): (\$3,000)
- Data Storage/Management/Distribution (IGS): (\$50,000)
- Data Storage/Management/Distribution (UITS): (\$10,000)
- Data Publication and Outreach (IGIC): (\$40,560) Also included in this item are additional one-year costs for hardware and software maintenance totaling \$12,100.
  - Linux Virtual Server (dual-core)      \$2,000
  - Linux Setup and Admin                      \$5,100
  - ArcGIS Server (State rate)                \$5,000
- Data Visualization (IBRC): (\$6,000)
- Update Orthophotography: These funds will be added to those of other contributors to support updating the statewide high resolution orthophotography. This imagery will be used to support mapping and verification activities. (\$120,000)

### **Phase III - Maintenance**

- Project Management: (\$40,472)
- Geospatial Data Processing: (\$100,000)
- Data Collection: (\$15,000)

- Data Verification: (\$20,800)
- Data Publication (Data Center): (\$12,000)
- Data Storage/Management/Distribution (IGS): (\$80,000)
- Data Storage/Management/Distribution (UITS): (\$40,000)
- Data Publication and Outreach (IGIC): (\$112,320) Also included are costs for hardware and software maintenance totaling \$48,400 for years 2011 through 2014.

2011 2012 2013 2014

- Linux Virtual Server (dual-core) \$2,000 \$2,000 \$2,000 \$2,000
- Linux Setup and Admin \$5,100 \$5,100 \$5,100 \$5,100
- ArcGIS Server (State rate) \$5,000 \$5,000 \$5,000 \$5,000
- Data Visualization (IBRC): (\$24,000)
- Update Orthophotography: (\$600,000)
- County Data Transfer: These funds will ensure the continuation of the transfer from Indiana counties of land parcels, point addresses, local roads with address ranges, and local administrative boundaries to the State which are critical to this project. (\$1,290,000)

The spreadsheet shown here and attached for submittal on Grants.gov is divided into calendar years. Adjustments were made to convert to fiscal year as entered in Standard Form 242A. Project management was entered as Personnel costs (\$101,150). All other costs were entered as Contractual (\$3,254,250).

BROADBAND MAPPING ESTIMATE	Labor Cost					Hours					Rate	Labor Total	ODC TOTAL	GRAND TOTAL		
	2009	2010	2011	2012	2013	2014	2009	2010	2011	2012					2013	2014
<b>Phase I - Initial Build</b>																\$468,792
Project Management	\$36,472												\$36,472			\$36,472
Application Development	\$25,000						200						\$125	\$25,000		\$25,000
Geospatial Data Processing	\$175,000						1400						\$125	\$175,000		\$175,000
Data Collection	\$13,000						200						\$65	\$13,000		\$13,000
Data Verification	\$13,000						200						\$65	\$13,000		\$13,000
Data Publication (Data Center)	\$9,000						120						\$75	\$9,000		\$9,000
Data Storage/Management/Distribution (IGS)	\$75,000						750						\$100	\$75,000		\$75,000
Data Storage/Management/Distribution (UITS)	\$16,000						160						\$100	\$16,000		\$16,000
Data Publication and Outreach (IGIC)	\$18,720						288						\$65	\$18,720	\$33,800	\$52,520
Data Visualization (IBRC)	\$20,000						200						\$100	\$20,000		\$20,000
<b>Phase II - Data Refinement</b>																\$407,468
Project Management		\$24,204													\$24,204	\$24,204
Geospatial Data Processing		\$100,000						600					\$125	\$100,000		\$100,000
Data Collection		\$19,500						300					\$65	\$19,500		\$19,500
Data Verification		\$13,000						200					\$65	\$13,000		\$13,000
Data Publication (Data Center)		\$3,000						40					\$75	\$3,000		\$3,000
Data Storage/Management/Distribution (IGS)		\$50,000						500					\$100	\$50,000		\$50,000
Data Storage/Management/Distribution (UITS)		\$10,000						100					\$100	\$10,000		\$10,000
Data Publication and Outreach (IGIC)		\$40,560						624					\$65	\$40,560	\$12,100	\$52,660
Data Visualization (IBRC)		\$6,000						80					\$100	\$6,000		\$6,000
Update Orthophotography		\$120,000												\$120,000		\$120,000
<b>Phase III - Maintenance</b>																\$2,431,992
Project Management			\$10,118	\$10,118	\$10,118	\$10,118									\$40,472	\$40,472
Geospatial Data Processing			\$25,000	\$25,000	\$25,000	\$25,000			200	200	200	200	\$125	\$100,000		\$100,000
Data Collection			\$3,900	\$3,900	\$3,900	\$3,900			60	60	60	60	\$65	\$15,600		\$15,600
Data Verification			\$5,200	\$5,200	\$5,200	\$5,200			80	80	80	80	\$65	\$20,800		\$20,800
Data Publication (Data Center)			\$3,000	\$3,000	\$3,000	\$3,000			40	40	40	40	\$75	\$12,000		\$12,000
Data Storage/Management/Distribution (IGS)			\$20,000	\$20,000	\$20,000	\$20,000			200	200	200	200	\$100	\$80,000		\$80,000
Data Storage/Management/Distribution (UITS)			\$10,000	\$10,000	\$10,000	\$10,000			100	100	100	100	\$100	\$40,000		\$40,000
Data Publication and Outreach (IGIC)			\$28,080	\$28,080	\$28,080	\$28,080			432	432	432	432	\$65	\$112,320	\$48,400	\$160,720
Data Visualization (IBRC)			\$6,000	\$6,000	\$6,000	\$6,000			60	60	60	60	\$100	\$24,000		\$24,000
Update Orthophotography			\$120,000	\$120,000	\$120,000	\$120,000								\$600,000		\$600,000
County Data Transfer				\$430,000	\$430,000	\$430,000									\$1,290,000	\$1,290,000
<b>Totals</b>	\$401,180	\$506,266	\$231,298	\$661,298	\$661,298	\$661,298	3518	2624	1172	1172	1172	1172		\$3,122,650	\$94,300	\$3,216,950

Grand Total with OD \$3,355,400

In-Kind Match

We propose to use land parcel data that has been provided to the State by 72 Indiana Counties to provide a 20% in-kind match. This information, which includes the geographic location of the parcel, along with an address and a parcel identification number, will allow us to identify addresses within service area boundaries (and other geographic boundaries) and to join to State agency databases to determine if each address is residential or commercial.

We are using the same formula that has been previously, and successfully used to account for in-kind match for FEMA funding, which is:

Number of land parcels x market value (\$7.00 per parcel) x .05%

Plus \$0.50 per parcel for maintenance

This project will make use of the parcels contributed by 72 counties, totaling 2,715,567.

Parcels	Market Value	% of Value	In-kind Value	Maint/yr.	Maintenance Value	Total In-kind
2,715,567	\$7.00	5.00%	\$950,448.45	\$0.50	\$1,357,783.50	\$2,308,231.95

However, only 20% of the total project amount is required.  $20\% \times \$3,355,400 = \$671,080$ .

Other contributed data layers will be used for this project and could be counted toward in-kind match, but that value is not required to meet the 20% match.

**(b) Applicant Capacity, Knowledge and Expertise**

In section, we describe the qualifications of key participants of the Broadband Mapping Workgroup, as well as a brief description of the participating agencies and organizations.

Agency/Organization	Member Name	Member Title
Indiana Economic Development Corporation	Ryan Asberry	Assistant Vice President
Indiana Economic Development Corporation	David Meehan	Policy Analyst
Office of Community and Rural Affairs	Geoff Schomacker	Project Manager
Indiana Utility Regulatory Commission	Larry Landis	Commissioner
Indiana Utility Regulatory Commission	Jennifer Richardson	Chief Federal and Legislative Policy Advisor
Office of Utility Consumer Counselor	David Stippler	Utility Consumer Counselor
Office of Utility Consumer Counselor	Ronald Keen	Utility Analyst
Office of Utility Consumer Counselor	Richard Higgins	Executive Director of Technical Operations
Indiana Geographic Information Council	Phil Worrall	Executive Director
Indiana Office of Technology	Brian Arrowood	Director of Service Delivery
Indiana Office of Technology	Jim Sparks	Indiana Geographic Information Officer

## **Broadband Mapping Workgroup – Key Participants**

### Jim Sparks

Jim Sparks will serve as project manager for this project. He has spent most of his career working with geospatial information. His experience has come through positions as construction surveyor, cartographer, parcel mapper and GIS consultant, and in capacities as technician, supervisor, team leader, project manager, and director. Of note among the 40-plus significant GIS projects that Jim has led is the 200,000 person-hour IMAGIS (Indianapolis Mapping and Geographic Infrastructure System) data conversion project, which was completed between July 1987 and July 1989.

While most of his experience has been in the private sector, he has also worked in county and state government and the university environment. He is a founding member of the Indiana GIS Initiative, and has served as co-chair of INGISI's Data Standards and Data Sharing committees and as Vice President of the Indiana Geographic Information Council Board of Directors. Jim has also contributed to the local GIS community as a frequent presenter of topics that have included "GIS for Librarians", "An Introduction to GIS", "GIS Legal Issues", "Implementing a County GIS" and "For Fee or Free? Access to Government Spatial Data". His published papers include "Getting a GIS in 'Bits and Pieces'", American City and County Magazine; "The Indianapolis Pavement Management Project", AM/FM International; and "Controlling Quality during the Data Conversion Process", GIS/LIS.

In October 2007, Jim was appointed as Indiana's first Geographic Information Officer with a mission to facilitate the development, maintenance, and distribution of comprehensive statewide geographic data.

### Geoff Schomacker

Geoff Schomacker is a Project Manager for the Indiana Office of Community and Rural Affairs (OCRA), a state agency under the leadership of Lt. Governor Becky Skillman. In this role he serves as policy advisor on technology, especially broadband. Additionally he is responsible for the development and management of programs that build community capacity to support economic development, especially focused on supporting an entrepreneurial culture as well as workforce and educational development.

### Jennifer Richardson

Jennifer Richardson graduated from Indiana University with a Masters Degree in Public Policy in 2001. She has been employed with the Indiana Utility Regulatory Commission since 2000 when she began her career in the telecommunications division as a utility analyst. During her tenure, Ms. Richardson has successfully negotiated numerous utility settlements as a representative of the IURC which resulted in multi-million dollar savings and commitments for

additional broadband deployment throughout Indiana, low-income consumer education campaigns and revised service quality benchmarks for some of Indiana's largest telecommunications carriers. In 2006, Ms. Richardson was a member of a dedicated team that took part in the landmark telecommunications market overhaul and was the recipient of the Governor's Excellence in Public Service Award. Ms. Richardson is also staff Chair of the Federal-State Joint Board on Universal Service. In that capacity, Ms. Richardson leads a national group of economists, policy analysts and attorneys who provide economic and policy advice to the Federal Communications Commission (FCC). Ms. Richardson is also the staff Chair of the 706 Joint Conference on Advanced Service- another federal policy-making body that provides policy recommendations to the FCC on issues involving national and regional broadband initiatives.

#### Ronald Keen

Ronald Keen accepted a position at the Indiana Office of Utility Consumer Counselor in 2001. He brings to the agency over 20 years of experience and expertise in telecommunications, as well as an extensive background in infrastructure systems planning and protection.

Prior to joining the agency, Ron served as an officer in the United States Air Force -- retiring after a distinguished and highly decorated 20-year career. After retiring, Ron worked for several years as a project manager developing space-based communications management systems for ARINC and teaching communications concepts to U.S. Government agencies. He is an acknowledged subject matter expert in a number of areas, including telecommunications, emergency/contingency operations, and space systems operations.

A native from Abilene, Texas, Ron holds a Masters degree in Aeronautical Science from Embry Riddle University as well as a Bachelor degree in Management from Texas State University at San Marcos.

#### David Stippler

David Stippler became the 23rd Utility Consumer Counselor for the State of Indiana on March 10, 2008. Having specialized in public utility law throughout most of his career, Dave brings 35 years of experience as a practicing Indiana attorney to his role as the State's Utility Consumer Counselor.

Dave oversees a dedicated 50-member staff, including attorneys, analysts, engineers and additional employees who represent Indiana's residential, commercial and industrial ratepayers in state and federal utility regulatory proceedings.

Before joining the OUCC, Dave spent six years with the Indianapolis law firm of Bingham McHale, LLP where he represented utilities and municipalities on a wide range of legal and regulatory issues affecting their business activities. He also served for 17 years as in-house corporate counsel with Ameritech Corporation and SBC Communications. Before his corporate

law experience, Dave was engaged in private practice, concentrating in corporate law and civil litigation in Indianapolis for more than 10 years.

An Evansville native, Dave is a 1973 cum laude graduate of the Indiana University School of Law – Indianapolis. He is also an alumnus of Saint Meinrad College and the University of Evansville.

#### Phil Worrall

Phil has been actively working in the private sector mapping industry in Indiana for over 30 years, and brings his experience, enthusiasm, and energy to the Council. One focus of his career has been to strive to deliver high-quality digital mapping data with easy-to-use GIS software to the masses (the end-users). As a part of that goal, he has been active in IGIC since its inception, and strongly believes in the mission of the Council.

#### Larry Landis

Landis, a Republican, was appointed to the Indiana Utility Regulatory Commission by the late Governor Frank O'Bannon (D-IN) in December, 2002, joining the Commission in January 2003 to fill an unexpired term. In July of 2004, he was reappointed to a full four-year term by former Governor Joe Kernan (D-IN)., and to a second full four-year term by Governor Mitch Daniels (R-IN) in December, 2007.

Landis has served the National Association of Regulatory Utility Commissioners (NARUC) in a variety of telecommunications-related roles. He was named to the Telecommunications Committee in mid-2003, and was Vice Chair of NARUC's Intercarrier Compensation Task Force.

In January of 2005, Landis was nominated by NARUC and named to the Federal-State Joint Conference on Advanced Telecommunications Services, of which he is now State Chair. In November of 2005 he was nominated by NARUC and appointed to the Federal-State Joint Board on Universal Service. In May of 2008, Commissioner Landis was also appointed to the NARUC Board of Directors.

Landis is also a member of the Advisory Board of the Financial Research Institute at the College of Business, University of Missouri/ Columbia; and of the Society of Utility and Regulatory Financial Analysts.

His diverse career includes service with two Indianapolis mayoral campaigns of Richard G. Lugar, the US Senate campaign of William D. Ruckelshaus, the first of two gubernatorial campaigns of Dr. Otis R. Bowen, and the Congressional campaign of William N. Salin.

Prior to joining the Commission, he also spent 30 years in the private sector, focusing on marketing and communications.

## **Broadband Mapping Workgroup – Participating Organizations/Agencies**

### Indiana Economic Development Corporation

The Indiana Economic Development Corporation (IEDC) responds quickly to help businesses locate, grow and thrive in Indiana. The State of Indiana's lead economic development agency, the IEDC oversees Indiana's statewide business attraction and development efforts, coordinates state programs and incentives for companies looking to grow in Indiana, and provides technical assistance, business expertise and funding to Indiana entrepreneurs and high-tech start-ups. The IEDC is led by Indiana Secretary of Commerce and Chief Executive Officer E. Mitchell Roob, Jr. and governed by a 12-member board chaired by Governor Mitch Daniels.

### Indiana Office of Community and Rural Affairs

The Indiana Office of Community and Rural Affairs (OCRA) was created by legislation in 2005 that also appointed Lt. Governor Becky Skillman as the first Secretary of Agriculture and Rural Development. OCRA's mission is to work with local, state, and national partners to provide resources and technical assistance to aid rural communities in shaping their visions for economic development

### Indiana Utility Regulatory Commission

The Indiana Utility Regulatory Commission is a fact-finding body that hears evidence in cases filed before it and makes decisions based on the evidence presented in those cases. An advocate of neither the public nor the utilities, the IURC is required by state statute to make decisions that balance the interests of all parties to ensure the utilities provide adequate and reliable service at reasonable prices.

### Indiana Office of Utility Consumer Counselor

The Indiana Office of Utility Consumer Counselor (OUCC) is the state agency that represents the interests of all Indiana utility consumers in regulatory matters regarding:

- Electricity
- Natural gas
- Water and wastewater disposal services
- Limited telecommunications issues

Created by the Indiana General Assembly in 1933, the OUCC is the oldest state agency of its type in the United States. The agency's director, the Utility Consumer Counselor, is appointed by the Governor and serves a four-year term.

### Indiana Geographic Information Council

The Indiana Geographic Information Council (IGIC) is a nonprofit organization whose mission is to lead the effective application of geographic information in Indiana. Our membership includes individuals from all levels of government, private industry, educational institutions and other nonprofit groups. Through our membership and elected board of directors, we strive to make a real difference in Indiana GIS - both for those who use it and those who benefit from it.

It is our vision that all Indiana communities will be safer, healthier and wiser because they are part of a robust statewide GIS infrastructure.

### Indiana Office of Technology

The Indiana Office of Technology's (IOT) mission is to provide cost-effective, secure, consistent, reliable enterprise technology services to its partner agencies so they can better serve Hoosier taxpayers. Indiana Code, Article 13.1 established IOT as a state agency in July 2005 to:

- (1) Establish standards for the technology infrastructure of the state,
- (2) Focus state information technology services to improve service levels to citizens and lower costs of providing information technology services,
- (3) Bring the best and most appropriate technology solutions to bear on state technology applications,
- (4) Improve and expand government services provided electronically, and
- (5) Provide the technology and procedures for the state to do business with the greatest security possible.



### 3. Expedient Data Delivery

We believe that the three-phase approach for this project will facilitate the delivery of a substantially complete set of all broadband mapping data on or before February 1, 2010 with such data collection completed by March 1, 2010. The data will be continuously refined throughout the term of this project, especially upon the second delivery scheduled for June 1, 2010. The timelines for Phases I and II are shown below. Phase III will take place in project years two through five.

#### Phase I Timeline.

	Aug-09				Sep-09				Oct-09				Nov-09			
	Wk 1	Wk 2	Wk 3	Wk 4	Wk 1	Wk 2	Wk 3	Wk 4	Wk 1	Wk 2	Wk 3	Wk 4	Wk 1	Wk 2	Wk 3	Wk 4
<b>Phase I: Create Initial Broadband Data Set</b>																
<b>Part One: Pilot (complete by 8/10/09)</b>																
Identify Pilot County																
Refresh contact info for broadband service providers in pilot county.																
Identify and collect relevant broadband data "in-hand"																
Convert hard copy data to digital form																
Transfer attributes of the source data to specific addresses by GIS overlay processes (point in polygon)																
Verify/QC																
Create data as defined in Technical Specification																
<b>Part Two: Full Production (complete by 11/1/09)</b>																
Refresh contact info for broadband service providers																
Identify and collect relevant broadband data "in-hand"																
Convert hard copy data to digital form																
Transfer attributes of the source data to specific addresses by GIS overlay processes (point in polygon)																
Verify/QC																
Create and deliver data as defined in Technical Specification																
Work with partners to define data dissemination methods																
Publish public data on the IndianaMap and other points of distribution																

Note that this schedule assumes a start time prior to notification of funding. Because of the importance of the results of this work, we are willing to move forward without notification of funding.

#### Phase II Timeline.

	2009		2010						
	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
<b>Phase II: Broadband Data Refinement</b>									
Stand up and advertise web application to collect broadband service information from consumers, including service provider used (or available), location (by address or point on a map), service cost, and speed (from Internet speed test).									
Divide state into 8 - 10 regions									
Refresh contact info for broadband service providers in target region									
Hold regional information sessions to provide information about project and request service provider data									
Identify and collect relevant broadband data "in-hand"									
Gather information made available from service providers									
Convert hard copy data to digital form									
Transfer attributes of the source data to specific addresses by GIS overlay processes (point in polygon)									
Verify/QC									
Create and deliver data as defined in Technical Specification									
Publish public data on the IndianaMap									

#### **4. Process for Repeated Data Updating**

We propose to work with broadband service providers, their trade association representatives, and the State/County/Local agencies that are currently involved in collecting portions of this data to establish a regularly repeating update schedule that will verify existing information and add new information. As suggested in the NOFA, the data will be updated at least on March 1 of each year (by collecting data as of December 31 of the previous year) and at least September 1 of each year (by collecting data as of June 30 of that year). Because the initial data collection is due on February 1, 2010, the next update will be due on September 1, 2010 but should include data accurate as of both December 31, 2009 and June 30, 2010, after which, the collections will follow the specified schedule.

An update process will be discussed and formulated in the regional meetings that are planned early in Phase II. We anticipate that several follow-up meetings will be required to work through the details to establish a regular update cycle. After the data is collected, we will use the same processes described in Section 2 of this document to create an updated set of broadband mapping data as defined in the technical section of the NOFA. We also believe that it is important to chart progress over time, so we will create a process at the beginning to capture this history.

## 5. Planning and Collaboration

We have created a Broadband Mapping Workgroup to plan and execute a Broadband Mapping project for Indiana. The members of the workgroup represent a number of Indiana government agencies with a vested interest in the success of the project, and are listed in the following table.

Agency/Organization	Member Name	Member Title
Indiana Economic Development Corporation	Ryan Asberry	Assistant Vice President
Indiana Economic Development Corporation	David Meehan	Policy Analyst
Office of Community and Rural Affairs	Geoff Schomacker	Project Manager
Indiana Utility Regulatory Commission	Larry Landis	Commissioner
Indiana Utility Regulatory Commission	Jennifer Richardson	Chief Federal and Legislative Policy Advisor
Office of Utility Consumer Counselor	David Stippler	Utility Consumer Counselor
Office of Utility Consumer Counselor	Ronald Keen	Utility Analyst
Office of Utility Consumer Counselor	Richard Higgins	Executive Director of Technical Operations
Indiana Geographic Information Council	Phil Worrall	Executive Director
Indiana Office of Technology	Brian Arrowood	Director of Service Delivery
Indiana Office of Technology	Jim Sparks	Indiana Geographic Information Officer

This workgroup will remain in place throughout the life of this project and will provide oversight for project activities. We anticipate meeting routinely each month but also as the need arises.

In addition, as has been mentioned throughout this application, communication will occur throughout the term of this project with the broadband service provider community and project partners and collaborators. Likewise, we will enlist the support of Indiana City and County government agencies as contributors to, and benefactors of, this project. These local government contacts can add value to the project, in particular, through their relationships with broadband service providers and their trade representatives.

We are planning for a series of 8 to 10 regional information sessions to kick-off Phase II. These sessions will provide an overview of the project and how the data will be used and published. Given the positive discussions that are currently taking place at a national level, the transparency of our project approach, and the commitment of many of the service providers to support this project as outlined in the August 6<sup>th</sup> letter to Assistant Secretary Strickling, we anticipate that these regional meeting will be very productive.

We will also collaborate with project partners to store, visualize, publish the results of the project, and for outreach to the public and organizations with an interest in the resulting information.

These data distribution project partners include:

- The Indiana Geographic Information Council (IGIC). Represented in the Broadband Mapping Workgroup, IGIC is a nonprofit membership organization of GIS users,

professionals and educators and serves as a statewide coordinating body for Indiana geographic information.

- Indiana Geological Survey. In partnership with the State of Indiana, IGIC, and others, IGS hosts and manages the IndianaMap web portal, one of the distribution channels for the information that will be created through this project.
- The Indiana Data Center, Indiana State Library. The Data Center provides data and training services to all sectors of the community including government agencies, businesses, academia, non-profit organizations, and private citizens. Their products and services are used in marketing, economic development, community planning and analysis, grant writing, business start-ups, and much more.
- Indiana Business Research Center, Indiana University. The Indiana Business Research Center is an extensive resource for data and analysis of economic and demographic information needed by business, government and nonprofit organizations in Indiana and throughout the nation.

We also wish to engage Indiana universities that may have project roles, including representatives from Ball State University (high level of wireless expertise), and Purdue University (broad technical expertise, including the use of GIS). In addition, we plan frequent and regular liaison with:

- Indiana Association of Cities and Towns
- Indiana Association of Counties
- Indiana Telecommunications Association
- Indiana Exchange Carrier Association
- Indiana Cable Telecommunications Association
- Indiana Chamber of Commerce
- Indiana Manufacturers Association
- Indiana Energy Association

The positive effect of the collaboration among these many agencies and organizations has already been felt in Indiana in many ways – from economic development to the creation of a rich statewide geospatial resource, to reaching out to the public with clearly visualized representations of complex data about Indiana – and this valuable impact will continue with Indiana broadband mapping.

## **Mapping Indiana Broadband Budget Narrative**

We are requesting a total of \$3,355,400. The following line items are shown by project phase and are explained in detail in this section. These line items are also contained in the spreadsheet provided at the end of this section and attached as a separate supporting document to the Grants.gov submittal package (mappingINbroadband.xls).

### **Phase I - Initial Build**

- **Project Management:** This task accounts for the time involved with the overall management of the project and is calculated as 10% of the human resource cost for this phase. (\$36,472)
- **Application Development:** This line item covers the cost of developing the web application that will be used to capture end user location, identify of service provider, and broadband speed. (\$25,000)
- **Geospatial Data Processing:** This effort involves the digitization of hard copy maps and the transfer of attributes from GIS boundaries to individual address points provided by Indiana counties. We expect to use a GIS service provider for this work and have used an hourly rate reflective of that expectation. (\$175,000)
- **Data Collection:** Data collection will be done by a variety of people ranging from agency staff to student interns, to contracted help. A blended rate of \$65 per hour was used for cost calculation. (\$13,000)
- **Data Verification:** Like data collection, this work will be performed by a variety of people. (\$13,000)
- **Data Publication (Data Center):** These funds will be used by the State Library's Data Center to make the results of this project available to the public. (\$9,000)
- **Data Storage/Management/Distribution (IGS):** This line item is related to managing and distributing the project results as part of the IndianaMap by the Indiana Geological Survey. (\$75,000)
- **Data Storage/Management/Distribution (UITS):** These funds will support the work of the University Information Technology Services group at Indiana University to continue to make aerial photographs available for analysis throughout the project. (\$16,000)
- **Data Publication and Outreach (IGIC):** The Indiana Geographic Information Council will be an indispensable partner involved with providing an addition channel of distributing the project results to the public, and to support outreach efforts with project partners and collaborators throughout the life of the project. (\$18,720)

This Phase I task also includes an additional \$33,800 for hardware and software to stand up a server for data distribution, detailed as follows:

- Linux Virtual Server (dual-core)      \$2,000
  - Linux Setup and Admin                      \$6,800
  - ArcGIS Server (State rate)                \$25,000
- Data Visualization (IBRC): The Indiana Business Research Center is especially adept at clearly presenting complex information. We will take advantage of these skills to prepare meaningful and understandable maps and other data that result from this project. (\$20,000)

**Phase II - Data Refinement**

- Project Management: (\$24,206)
- Geospatial Data Processing: (\$100,000)
- Data Collection: (\$19,500)
- Data Verification: (\$13,000)
- Data Publication (Data Center): (\$3,000)
- Data Storage/Management/Distribution (IGS): (\$50,000)
- Data Storage/Management/Distribution (UTS): (\$10,000)
- Data Publication and Outreach (IGIC): (\$40,560) Also included in this item are additional one-year costs for hardware and software maintenance totaling \$12,100.
  - Linux Virtual Server (dual-core)      \$2,000
  - Linux Setup and Admin                      \$5,100
  - ArcGIS Server (State rate)                \$5,000
- Data Visualization (IBRC): (\$6,000)
- Update Orthophotography: These funds will be added to those of other contributors to support updating the statewide high resolution orthophotography. This imagery will be used to support mapping and verification activities. (\$120,000)

**Phase III - Maintenance**

- Project Management: (\$40,472)
- Geospatial Data Processing: (\$100,000)
- Data Collection: (\$15,000)
- Data Verification: (\$20,800)
- Data Publication (Data Center): (\$12,000)

- Data Storage/Management/Distribution (IGS): (\$80,000)
  - Data Storage/Management/Distribution (UITS): (\$40,000)
  - Data Publication and Outreach (IGIC): (\$112,320) Also included are costs for hardware and software maintenance totaling \$48,400 for years 2011 through 2014.
- |                                    | 2011    | 2012    | 2013    | 2014    |
|------------------------------------|---------|---------|---------|---------|
| ○ Linux Virtual Server (dual-core) | \$2,000 | \$2,000 | \$2,000 | \$2,000 |
| ○ Linux Setup and Admin            | \$5,100 | \$5,100 | \$5,100 | \$5,100 |
| ○ ArcGIS Server (State rate)       | \$5,000 | \$5,000 | \$5,000 | \$5,000 |
- Data Visualization (IBRC): (\$24,000)
  - Update Orthophotography: (\$600,000)
  - County Data Transfer: These funds will ensure the continuation of the transfer from Indiana counties of land parcels, point addresses, local roads with address ranges, and local administrative boundaries to the State which are critical to this project. (\$1,290,000)

The spreadsheet shown here and attached for submittal on Grants.gov is divided into calendar years. Adjustments were made to convert to fiscal year as entered in Standard Form 242A. Project management was entered as Personnel costs (\$101,150). All other costs were entered as Contractual (\$3,254,250).

BROADBAND MAPPING ESTIMATE	Labor Cost						Hours						Rate	Labor Total	ODC TOTAL	GRAND TOTAL	
	2009	2010	2011	2012	2013	2014	2009	2010	2011	2012	2013	2014					
<b>Phase I - Initial Build</b>																	\$468,792
Project Management	\$36,472														\$36,472		\$36,472
Application Development	\$25,000						200						\$125	\$25,000		\$25,000	
Geospatial Data Processing	\$175,000						1400						\$125	\$175,000		\$175,000	
Data Collection	\$13,000						200						\$65	\$13,000		\$13,000	
Data Verification	\$13,000						200						\$65	\$13,000		\$13,000	
Data Publication (Data Center)	\$9,000						120						\$75	\$9,000		\$9,000	
Data Storage/Management/Distribution (IGS)	\$75,000						750						\$100	\$75,000		\$75,000	
Data Storage/Management/Distribution (UITS)	\$16,000						160						\$100	\$16,000		\$16,000	
Data Publication and Outreach (IGIC)	\$18,720						288						\$65	\$18,720	\$33,800	\$52,520	
Data Visualization (IBRC)	\$20,000						200						\$100	\$20,000		\$20,000	
<b>Phase II - Data Refinement</b>																	\$407,466
Project Management		\$24,206													\$24,206		\$24,206
Geospatial Data Processing		\$100,000						800					\$125	\$100,000		\$100,000	
Data Collection		\$19,500						300					\$65	\$19,500		\$19,500	
Data Verification		\$13,000						200					\$65	\$13,000		\$13,000	
Data Publication (Data Center)		\$3,000						40					\$75				
Data Storage/Management/Distribution (IGS)		\$50,000						500					\$100	\$50,000		\$50,000	
Data Storage/Management/Distribution (UITS)		\$10,000						100					\$100	\$10,000		\$10,000	
Data Publication and Outreach (IGIC)		\$40,560						624					\$65	\$40,560	\$12,100	\$52,660	
Data Visualization (IBRC)		\$6,000						60					\$100	\$6,000		\$6,000	
Update Orthophotography		\$120,000												\$120,000		\$120,000	
<b>Phase III - Maintenance</b>																	\$2,431,592
Project Management			\$10,118	\$10,118	\$10,118	\$10,118									\$40,472		\$40,472
Geospatial Data Processing			\$25,000	\$25,000	\$25,000	\$25,000			200	200	200	200	\$125	\$100,000		\$100,000	
Data Collection			\$3,900	\$3,900	\$3,900	\$3,900			60	60	60	60	\$65	\$15,600		\$15,600	
Data Verification			\$5,200	\$5,200	\$5,200	\$5,200			80	80	80	80	\$65	\$20,800		\$20,800	
Data Publication (Data Center)			\$3,000	\$3,000	\$3,000	\$3,000			40	40	40	40	\$75	\$12,000		\$12,000	
Data Storage/Management/Distribution (IGS)			\$20,000	\$20,000	\$20,000	\$20,000			200	200	200	200	\$100	\$80,000		\$80,000	
Data Storage/Management/Distribution (UITS)			\$10,000	\$10,000	\$10,000	\$10,000			100	100	100	100	\$100	\$40,000		\$40,000	
Data Publication and Outreach (IGIC)			\$28,080	\$28,080	\$28,080	\$28,080			432	432	432	432	\$65	\$112,320	\$48,400	\$160,720	
Data Visualization (IBRC)			\$6,000	\$6,000	\$6,000	\$6,000			60	60	60	60	\$100	\$24,000		\$24,000	
Update Orthophotography			\$120,000	\$120,000	\$120,000	\$120,000								\$600,000		\$600,000	
County Data Transfer				\$430,000	\$430,000	\$430,000									\$1,290,000		\$1,290,000
<b>Totals</b>	\$401,192	\$906,266	\$251,298	\$661,298	\$661,298	\$661,298	3518	2624	1172	1172	1172	1172		\$3,122,650	\$94,300	\$3,261,100	
																	Grand Total with OD \$3,355,400

BROADBAND MAPPING ESTIMATE 08/17/09	Labor Cost						Hours						Rate	Labor Total	ODC TOTAL	GRAND TOTAL	See PHIL's NOTES below
	2009	2010	2011	2012	2013	2014	2009	2010	2011	2012	2013	2014					
<b>Phase I - Initial Build</b>																	
Project Management	\$36,472													\$36,472		\$468,792	(#5)
Application Development	\$25,000						200						\$125	\$25,000		\$25,000	
Geospatial Data Processing	\$175,000						1400						\$125	\$175,000		\$175,000	
Data Collection	\$13,000						200						\$65	\$13,000		\$13,000	(#3)
Data Verification	\$13,000						200						\$65	\$13,000		\$13,000	(#3)
Data Publication (Data Center)	\$9,000						120						\$75	\$9,000		\$9,000	
Data Storage/Mangement/Distribution (IGS)	\$75,000						750						\$100	\$75,000		\$75,000	
Data Storage/Mangement/Distribution (UITS)	\$16,000						160						\$100	\$16,000		\$16,000	
Data Publication and Outreach (IGIC)	\$18,720						288						\$65	\$18,720	\$33,800	\$52,520	(#1 & 2)
Data Visualization (IBRC)	\$20,000						200						\$100	\$20,000		\$20,000	
<b>Phase II - Data Refinement</b>																\$407,466	
Project Management		\$24,206												\$24,206		\$24,206	
Geospatial Data Processing		\$100,000						800					\$125	\$100,000		\$100,000	
Data Collection		\$19,500						300					\$65	\$19,500		\$19,500	(#3)
Data Verification		\$13,000						200					\$65	\$13,000		\$13,000	(#3)
Data Publication (Data Center)		\$3,000						40					\$75				
Data Storage/Mangement/Distribution (IGS)		\$50,000						500					\$100	\$50,000		\$50,000	
Data Storage/Mangement/Distribution (UITS)		\$10,000						100					\$100	\$10,000		\$10,000	
Data Publication and Outreach (IGIC)		\$40,560						624					\$65	\$40,560	\$12,100	\$52,660	(#1 & 2)
Data Visualization (IBRC)		\$6,000						60					\$100	\$6,000		\$6,000	
Update Orthophotography		\$120,000												\$120,000		\$120,000	
<b>Phase III - Maintenance</b>																\$2,431,992	
Project Management			\$10,118	\$10,118	\$10,118	\$10,118								\$40,472		\$40,472	
Geospatial Data Processing			\$25,000	\$25,000	\$25,000	\$25,000			200	200	200	200	\$125	\$100,000		\$100,000	(#4)
Data Collection			\$3,900	\$3,900	\$3,900	\$3,900			60	60	60	60	\$65	\$15,600		\$15,600	(#3 & 4)
Data Verification			\$5,200	\$5,200	\$5,200	\$5,200			80	80	80	80	\$65	\$20,800		\$20,800	(#3 & 4)
Data Publication (Data Center)			\$3,000	\$3,000	\$3,000	\$3,000			40	40	40	40	\$75	\$12,000		\$12,000	(#4)
Data Storage/Mangement/Distribution (IGS)			\$20,000	\$20,000	\$20,000	\$20,000			200	200	200	200	\$100	\$80,000		\$80,000	(#4)
Data Storage/Mangement/Distribution (UITS)			\$10,000	\$10,000	\$10,000	\$10,000			100	100	100	100	\$100	\$40,000		\$40,000	(#4)
Data Publication and Outreach (IGIC)			\$28,080	\$28,080	\$28,080	\$28,080			432	432	432	432	\$65	\$112,320	\$48,400	\$160,720	(#1, 2 & 4)
Data Visualization (IBRC)			\$6,000	\$6,000	\$6,000	\$6,000			60	60	60	60	\$100	\$24,000		\$24,000	(#4)
Update Orthophotography		\$120,000	\$120,000	\$120,000	\$120,000	\$120,000								\$600,000		\$600,000	
County Data Transfer				\$430,000	\$430,000	\$430,000								\$1,290,000		\$1,290,000	
<b>Totals</b>	<b>\$401,192</b>	<b>\$506,266</b>	<b>\$231,298</b>	<b>\$661,298</b>	<b>\$661,298</b>	<b>\$661,298</b>	<b>3518</b>	<b>2624</b>	<b>1172</b>	<b>1172</b>	<b>1172</b>	<b>1172</b>		<b>\$3,122,650</b>	<b>\$94,300</b>	<b>\$3,261,100</b>	
																	<b>Grand Total with ODC \$3,355,400</b>

Yr1 Q1	Y1Q2	Y1Q3	Y1 Q4	Y2	Y3	Y4	Y5
\$401,192	334135.6	\$172,130	0	\$231,298	\$661,298	\$661,298	\$661,298

Personnel: \$101,150  
Contractual: \$3,254,250





**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.		\$	\$	\$	\$	\$ 0.00
2. Mapping Indiana	11.558			1,266,269.00	316,567.00	1,582,836.00
3.						0.00
4.						0.00
5. Totals		\$ 0.00	\$ 0.00	\$ 1,266,269.00	\$ 316,567.00	\$ 1,582,836.00
SECTION B - BUDGET CATEGORIES						
6. Object Class Categories	GRANT PROGRAM, FUNCTION OR ACTIVITY				Total (5)	
	(1)	(2)	(3)	(4)		
a. Personnel	\$	\$	\$ 101,150.00	\$	\$ 101,150.00	
b. Fringe Benefits					0.00	
c. Travel					0.00	
d. Equipment					0.00	
e. Supplies					0.00	
f. Contractual			1,481,686.00		1,481,686.00	
g. Construction					0.00	
h. Other					0.00	
i. Total Direct Charges (sum of 6a-6h)		0.00	0.00	1,582,836.00	0.00	1,582,836.00
j. Indirect Charges					0.00	
k. TOTALS (sum of 6i and 6j)	\$	\$ 0.00	\$ 0.00	\$ 1,582,836.00	\$ 0.00	\$ 1,582,836.00
7. Program Income	\$	\$	\$	\$	\$	\$

SECTION C - NON-FEDERAL RESOURCES					
(a) Grant Program	(b) Applicant	(c) State	(d) Other Sources	(e) TOTALS	
8.	\$	\$ 316,567.00	\$	\$ 316,567.00	
9.				0.00	
10.				0.00	
11.					
12. TOTAL (sum of lines 8-11)	\$	\$	\$ 0	\$ 0	
SECTION D - FORECASTED CASH NEEDS					
13. Federal	Total for 1st Year	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
	\$ 958,041.00	\$ 0.00	\$ 319,347.00	\$ 319,347.00	\$ 319,347.00
14. Non-Federal	0.00				
15. TOTAL (sum of lines 13 and 14)	\$ 958,041.00	\$ 0.00	\$ 319,347.00	\$ 319,347.00	\$ 319,347.00
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.	\$ 958,041.00	\$ 308,228.00	\$ 0.00	\$ 0.00	
17.					
18.					
19.					
20. TOTAL (sum of lines 16-19)	\$ 958,041.00	\$ 308,228.00	\$ 0.00	\$ 0.00	
SECTION F - OTHER BUDGET INFORMATION					
21. Direct Charges:		22. Indirect Charges:			
23. Remarks:					



STATE OF INDIANA  
OFFICE OF THE GOVERNOR  
State House, Second Floor  
Indianapolis, Indiana 46204

Mitchell E. Daniels, Jr.  
Governor

August 12, 2009

Mr. Larry Strickling  
Administrator  
National Telecommunications and Information Administration  
1401 Constitution Ave., N.W.  
Washington DC, 20230

R.E. Letter of State Designation for Indiana

Dear Mr. Strickling,

The Broadband Data Improvement Act (BDIA) requires a letter of state designation affirming that the Indiana Office of Technology (IOT) is the single entity in Indiana eligible to receive a grant under this Program.

Only July 1, 2009, the National Telecommunications and Information Administration (NTIA) issued a Notice of Fund Availability (NOFA) for State Broadband Mapping Grant. The NOFA reiterates the BDIA requirement for a letter of state designation.

As Governor of the State of Indiana, I do hereby designate the Indiana Office of Technology (IOT), and agency of the state, as the authorized designee for mapping broadband availability in Indiana. Let this letter stand as certification that the IOT is the single eligible entity for Indiana that has been designated by the state to receive a grant under Section 106(i)(2)(B) of the BDIA.

Thank you for your attention to this matter.

Sincerely,

A handwritten signature in black ink that reads "M E Daniels, Jr." in a cursive style.

Mitchell E. Daniels

cc: Indiana Chief Information Officer, Gerry Weaver

Applicants should also review the instructions for certification included in the regulations before completing this form. Signature on this form provides for compliance with certification requirements under 15 CFR Part 28, 'New Restrictions on Lobbying.' The certifications shall be treated as a material representation of fact upon which reliance will be placed when the Department of Commerce determines to award the covered transaction, grant, or cooperative agreement.

**LOBBYING**

As required by Section 1352, Title 31 of the U.S. Code, and implemented at 15 CFR Part 28, for persons entering into a grant, cooperative agreement or contract over \$100,000 or a loan or loan guarantee over \$150,000 as defined at 15 CFR Part 28, Sections 28.105 and 28.110, the applicant certifies that to the best of his or her knowledge and belief, that:

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, 'Disclosure Form to Report Lobbying,' in accordance with its instructions.

(3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure occurring on or before October 23, 1996, and of not less than \$11,000 and not more than \$110,000 for each such failure occurring after October 23, 1996.

**As the duly authorized representative of the applicant, I hereby certify that the applicant will comply with the above applicable certification.**

**Statement for Loan Guarantees and Loan Insurance**

The undersigned states, to the best of his or her knowledge and belief, that:

In any funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this commitment providing for the United States to insure or guarantee a loan, the undersigned shall complete and submit Standard Form-LLL, 'Disclosure Form to Report Lobbying,' in accordance with its instructions.

Submission of this statement is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required statement shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure occurring on or before October 23, 1996, and of not less than \$11,000 and not more than \$110,000 for each such failure occurring after October 23, 1996.

**\* NAME OF APPLICANT**

Indiana Office of Technology

**\* AWARD NUMBER**

0660-za29

**\* PROJECT NAME**

Mapping Indiana Broadband

**Prefix:**

**\* First Name:**

James

**Middle Name:**

**\* Last Name:**

Sparks

**Suffix:**

**\* Title:** Indiana Geographic Information Officer

**\* SIGNATURE:**

Jim Sparks

**\* DATE:**

08/12/2009

# DISCLOSURE OF LOBBYING ACTIVITIES

Complete this form to disclose lobbying activities pursuant to 31 U.S.C.1352

Approved by OMB  
0348-0046

<b>1. * Type of Federal Action:</b> <input type="checkbox"/> a. contract <input checked="" type="checkbox"/> b. grant <input type="checkbox"/> c. cooperative agreement <input type="checkbox"/> d. loan <input type="checkbox"/> e. loan guarantee <input type="checkbox"/> f. loan insurance	<b>2. * Status of Federal Action:</b> <input type="checkbox"/> a. bid/offer/application <input checked="" type="checkbox"/> b. initial award <input type="checkbox"/> c. post-award	<b>3. * Report Type:</b> <input checked="" type="checkbox"/> a. initial filing <input type="checkbox"/> b. material change
<b>4. Name and Address of Reporting Entity:</b> <input checked="" type="checkbox"/> Prime <input type="checkbox"/> SubAwardee * Name: <input type="text" value="Indiana Office of Technology"/> * Street 1: <input type="text" value="100 North Senate Avenue"/> Street 2: <input type="text" value="Indiana Government Center N551"/> * City: <input type="text" value="Indianapolis"/> State: <input type="text" value="IN: Indiana"/> Zip: <input type="text" value="46204"/> Congressional District, if known: <input type="text" value="IN-7"/>		
<b>5. If Reporting Entity in No.4 is Subawardee, Enter Name and Address of Prime:</b>  		
<b>6. * Federal Department/Agency:</b> <input type="text" value="US Department of Commerce/NTIA"/>	<b>7. * Federal Program Name/Description:</b> <input type="text"/> CFDA Number, if applicable: <input type="text"/>	
<b>8. Federal Action Number, if known:</b> <input type="text"/>	<b>9. Award Amount, if known:</b> \$ <input type="text"/>	
<b>10. a. Name and Address of Lobbying Registrant:</b> Prefix <input type="text"/> * First Name <input type="text" value="Not Applicable"/> Middle Name <input type="text"/> * Last Name <input type="text" value="Not Applicable"/> Suffix <input type="text"/> * Street 1 <input type="text"/> Street 2 <input type="text"/> * City <input type="text"/> State <input type="text"/> Zip <input type="text"/>		
<b>b. Individual Performing Services</b> (including address if different from No. 10a) Prefix <input type="text"/> * First Name <input type="text" value="Not Applicable"/> Middle Name <input type="text"/> * Last Name <input type="text" value="Not Applicable"/> Suffix <input type="text"/> * Street 1 <input type="text"/> Street 2 <input type="text"/> * City <input type="text"/> State <input type="text"/> Zip <input type="text"/>		
<b>11.</b> Information requested through this form is authorized by title 31 U.S.C. section 1352. This disclosure of lobbying activities is a material representation of fact upon which reliance was placed by the tier above when the transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be reported to the Congress semi-annually and will be available for public inspection. Any person who fails to file the required disclosure shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure. * Signature: <input type="text" value="Jim Sparks"/> * Name: Prefix <input type="text"/> * First Name <input type="text" value="James"/> Middle Name <input type="text"/> * Last Name <input type="text" value="Sparks"/> Suffix <input type="text"/> Title: <input type="text"/> Telephone No.: <input type="text"/> Date: <input type="text" value="08/12/2009"/>		
Federal Use Only		Authorized for Local Reproduction Standard Form - LLL (Rev. 7-97)

### ASSURANCES - NON-CONSTRUCTION PROGRAMS

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

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

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

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

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

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

<p>* SIGNATURE OF AUTHORIZED CERTIFYING OFFICIAL</p> <p>Jim Sparks</p>	<p>* TITLE</p> <p>Indiana Geographic Information Officer</p>
<p>* APPLICANT ORGANIZATION</p> <p>Indiana Office of Technology</p>	<p>* DATE SUBMITTED</p> <p>08/12/2009</p>

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