



# STATE OF INDIANA

**Michael R. Pence, Governor**

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## **Round 7 (Spring 2013) Data Submission to NTIA April 1, 2013**

<b>Data Description</b>	<b>File Name</b>	<b>Contents</b>	<b>Description</b>
IN_SBDD_20130418.ZIP		This Delivery Package	A zip file containing all of the files described below
IN_SBDD_2013_04_18.gdb		Data Transfer Model	Current NTIA approved data model with the assembled data properly loaded into the data transfer model
IN_DataPackage. 2013_04_18.xls		Data Package	A formatted file containing associated documentation about Indiana's submission
IN_2012_04_18.txt		Data Submission Receipt	File containing the results of the submission check tool
IN_Methodology _2013_04_18.pdf		Methodology White Paper	Documentation about our process
IN_Readme_2013_04_18.pdf		Readme Doc	A document that contains added notes about the delivery

### **Provider Participation**

122 Internet Providers

- 64 Wireline Providers
- 58 Wireless Providers

41 Data Sets Received

- 23 Wireline Providers
- 18 Wireless Providers



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## About this Submission

112 Broadband Providers in State of Indiana

- Some organizations have more than one name (for a total of):
  - 122 Internet Providers
    - 64 Wireline Providers
    - 58 Wireless Providers

### Provided New Data:

- AT&T, Inc.
- Bright House Networks, LLC
- CenturyTel, Inc./CenturyLink/Embarq
- Cequel Communications, LLC/Suddenlink/NewWave
- Clay County Rural Telephone Cooperative, Inc./Endeavor Communications
- ClearWire
- Comcast Cable Communications Management
- Community Wireless
- Covad Communications Group, LLC/DIECA Communications/MegaPath
- Echo Wireless
- Enhanced Telecommunications Corporation/ (Sunman Telecommunications Corp) ETC Communications
- Fourway Computer Products, Inc.
- Frontier Communications
- Indiana Fiber Network
- Joink, LLC/XSNet
- Leap Wireless International, Inc./Cricket Communications/Denali Spectrum License Sub, LLC
- Level 3 Communications, LLC (Purchased Global Crossing North America, Inc.)
- Ligonier Telephone Company
- Ligtel Communications
- Mediacom Communications Corp.
- MetaLINK Technologies, Inc.
- Metronet
- New Lisbon Telephone Co., Inc.
- New Wave Communication
- NITCO Holding Corporation/FBN Indiana, Inc. (Northwestern Indiana Telephone Company)
- Ohio Valley Wireless purchased by Sit-Co.net (Sitco)



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- **On-Ramp Indiana (ORI Net)**
- **Performance PC / Performance WISP**
- **Perry-Spencer Rural Telephone Coop (Communications)/PSC**
- **Portative Technologies, LLC**
- **Rochester Telephone Co./RTC Communications**
- **Smithville Telephone Company, Inc.**
- **Southeastern Indiana Rural Telephone Coop.**
- **Sprint-Nextel Communications**
- **Telephone and Data Systems, Inc. (TDS)**
- **Time Warner Cable LLC**
- **T-Mobile**
- **TransWorld Network, Corp./Wi-Power**
- **Verizon Wireless**
- **Washington County Rural Telephone Cooperative/Tele-Media Solutions**
- **Zayo Enterprise Networks**

## **Data Still Current:**

- ABC Hi-DEF Communications/ Broadway Broadband
- Accelplus
- Benton Ridge Telephone Company/Watchtv.net/
- Bloomingdale Home Telephone Company
- Blueriver Networking Services
- Citizens Communications
- Citizens Telephone/City of Scottsburg
- Comteck
- Craigville Telephone Company, Inc./AdamsWells Telecom
- CSInet Internet Access
- Daviess-Martin County RTC/RTC Communications
- East Allen High Speed Internet, LLC/ Eastern Indiana WIFI, Inc.
- Foundation Communications
- Full Choice Communications, Inc./Indiana Communications
- FULLnet
- Geetingsville Telephone Company, Inc.
- Great American Broadband /Only Internet.net/MapleNetBroadband
- Hancock Rural Telephone Corporation/Nine Star Connect
- Helix Technologies Incorporated/NetSurfUSA, Inc.



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- Hoosier Broadband
- Internet Communications Inc
- KC Online, Inc.
- Kendallville Internet
- Lightbound
- Metro FastNet
- Microdome Wireless
- MidwayNet.net
- Monon Telephone
- Mulberry Cooperative Telephone Co. Inc.
- New Paris Telephone Co., Inc./Brightnet of Indiana
- NewWays Networking, LLC
- NITLine (Northern Indiana Technologies, Inc.)
- Node 1 Technology/Wireless Internet for Illiana
- Omnicity (Broadband Networks) - new company
- Parallax Systems (RMC)
- PCS-WIN / RC-WiFi
- PDS Wireless/Precision Data Solutions
- Pulaski White Rural Telephone Coop., Inc.
- Skycasters Satellite Internet
- StarBand
- Swayzee Telephone Company
- TV Cable of Rensselaer & Winamac
- Wabash Mutual Telephone Company (Part of Brightnet)
- WideOpenWest
- WildBlue Communications, Inc.
- Windstream Communications
- Wintek
- Yeoman Telephone Co.
- Zig Wireless



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## **Awaiting Data**

- AirHOP Wireless
- DC Tech Solutions, LLC
- Locl.Net
- Michiana Wireless
- OINC Wireless
- SpeedNet/Keyon
- State of the Art Communications
- Total Logic Systems (TLS.net)
- YDial LLC

## **Will Not Provide Data:**

- Airbaud (Magnum Wireless)
- Midwest Telecom of America, Inc.
- One Communications Corporation (Now EarthLink Business)
- Broadband Indiana
- Midwest Telecom of America
- Indiana Data Center/Metrolan

## **Updated Information:**

- True 802 Wireless – will not be providing data as they have been purchased by someone that we are already working with (currently confidential).
- Broadband Blue – evaluating their information – trying to determine if they are a provider or reseller (and bundler in the state of Indiana).
- Pavlov Media, Inc., - evaluating their information – trying to determine if they are a provider or reseller (and bundler in the state of Indiana).
- LightningNet – organization previously reported as will provide data – now out of business.
- Brighthouse Networks – significant increase in their data. They had not updated their data since Fall of 2011.
- Sprint/Nextel - There were significant changes. They added 3G coverage in the north and they added some large markets for their LTE service.



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- Approximately 150K increase on the blocks and about a 400K increase on the address points

## Data Collection

We continue to collect and compare data from these sources, including:

- The Indiana Utility Regulatory Commission (comparison broadband data)
- Office of Utility Consumer Counselor (comparison 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)
- Reference USA /Infogroup (community anchors)
- **Broadband service providers, and others**

This information is processed according to the current data submission model offered by the National States Geographic Information Council and to be able to perform spatial comparisons, logic rules and other checks.

We also add emphasis to the collection of speed information using the “crowd sourcing” web-based application already implemented.

## Integration and Verification Processes Used in the Mapping Indiana Broadband Project Data Integration

When data is received from a service provider, it is loaded into either Excel or Access depending on the number of records and file size. This table is then joined with a copy of the Census Block \*.dbf file from our census block shapefile. After the data has been joined, it is exported as a



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new \*.dbf. The original Census block \*.dbf is renamed to preserve the original integrity and the newly exported \*.dbf is renamed to the same name as the shapefile. The shapefile is then loaded into ArcMap and a Feature Class is generated. The number of records is then validated against the number of records that were originally imported into either Excel or Access.

**Data Loading:** A final integration check occurs when the data is loaded into the data model. This includes the logic checks for values.

## Validation Processes:

- **Comparing source documents that duplicate geographies or content.** We have public domain data that covers most of the state. We compare this data to that provided by the Internet Service Providers. We note areas of discrepancy for follow-up using other verification methods listed here.
- **Collecting end-user data.** We are working with The Polis Center at Indiana University Purdue University Indianapolis and have created 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 is valuable for data verification as the database grows.
- **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. These sites are useful for spot checking.
- **Inspection of high-resolution orthophotography.** High-resolution orthophotography has been 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.
- **"Boots on the ground"** inspection. We visually inspect the existence of physical features, where feasible, when we have a question or conflict that can be resolved by an on-site inspection.

## Indiana Broadband Providers Website

A URL is available <http://www.in.gov/gis/Broadband.htm> to communicate and distribute NTIA NOFA requirements to providers along with outreach and data submittal materials including:

- NTIA NOFA and subsequent clarification
- Outreach letter to providers
- Non-Disclosure Agreement



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- Data Submission Guidelines
- Broadband Data Submittal Templates (Spreadsheets)
- Data Submittal Assistance Contact Information

## Indiana Broadband Service Questionnaire

<http://www.in.gov/gis/BroadbandQuestionnaire.htm>

<http://in-polis-app21.ads.iu.edu/BroadbandService/default.aspx>

[www.in.gov/survey](http://www.in.gov/survey)

**Instructions**

Fill out this form from a hard-wired computer that is connected to the Broadband service (not wireless).

1. Fill in the **address** of the location to which Internet service is being provided. (While you are entering your information, your internet connection speed will be queried).  
(e.g.) 123 Smith Street, Indianapolis, 46202
2. Click the "Verify Address" button to confirm/locate address. (The location does not have to be exact, a close street is sufficient).
3. Select **Customer Type** from the dropdown list.
4. Select your **Connection Type** from the dropdown list. If you are unsure about your connection select "Unknown".
5. Select your **Internet Provider** from the drop-down list.
6. Click "Submit" to complete the questionnaire. Your results will be displayed.

**Links**

- [The Polis Center](#)
- [Indiana Geographic Information Council](#)
- [Indiana Geographic Information Office](#)

**Your Information**

Fill out this form from a hard-wired computer that is connected to the Broadband service (not wire-less).

**Your Address:**  
(Example: 123 Smith Street, Indianapolis, 46220)

**Customer Type:**  
Business

**Connection Type:**  
Broadband over Power Line (BRC)

**Internet Provider:**  
1-800-Reconex

Indiana Geographic Information Office, 100 N. Senate Ave. Indianapolis, IN 46204 | email address: [gis@in.gov](mailto:gis@in.gov) | (phone: 317) 234-4111  
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The information collected from this website is 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).





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## Small Service Provider Support

We also support small service providers (and those with smaller information technology teams) in the area of data submission. We recognize the challenge that some providers have in submitting data in the formats and specifications required.

We have entered into a contract with AfterImage GIS to provide support to these providers in the area of data submission and assist with the challenges that some providers have in submitting data in the formats and specifications required by National Telecommunications and Information Administration (NTIA) for the National Broadband Map. Since we have engaged in this contract, we have been to acquire 12 new provider data sets.

## Data Display

### Indiana Map

We are currently displaying the mapping results as additional geospatial layers added to the 220-plus layers already on the IndianaMap ([www.indianamap.org](http://www.indianamap.org))





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## Indiana Business Research Center (IBRC)

We have integrated the broadband map data with economic data available from IBRC

[www.stats.indiana.edu/broadband/](http://www.stats.indiana.edu/broadband/)



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## Broadband

Broadband provides high-speed Internet connections to businesses and consumers. While in past decades, access to interstates and railroads played a crucial role in economic development, the knowledge-based economy is experiencing a similar reliance on broadband connectivity.

### Indiana Broadband Demographics

View a report of broadband coverage with associated economic and demographics for neighborhoods and custom regions.

- [About the Data](#)

### National Broadband Map



### Indiana Broadband Map



## Related Links

- [Internet Adoption by County and Census Tract](#) (Federal Communications Commission)
- [Innovation Index](#): Includes data on broadband density
- [Indiana Geographic Information Office](#)
- [Broadband: Federal Communications Commission](#)
- [National Broadband Plan](#)
- [IndianaMap](#): Download broadband shapefiles

## Maps

[Broadband Map Gallery](#)

## Publications

Find out what local analysts are saying:

- [Broadband Adoption in Indiana](#)  
May-June 2011
- [Measuring Regional Capacity for Innovation](#)  
Jan-Feb 2010

## In the News

Articles compiled daily from newspapers across the state:

- [NWI economic development district can't get guidance from feds](#)
- [New law signed by Daniels aims to stop 'bleeding' of 911 fees in Hoosier counties](#)

[-more-](#)



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## Indiana Broadband Map

We have developed a web-based information tool that will provide information about broadband service availability at a user-specified location.

[www.indianabroadbandmap.com](http://www.indianabroadbandmap.com)

This application provides tools for searching and displaying broadband availability information anywhere in Indiana.

### Public Use

- Zoom to County
- Zoom to Address and retrieve Broadband Information for that address
- Buffer Address for additional Broadband Information in the area
- View Provider Results
- Filter Broadband Information by Speed
- Filter Broadband Information by Technology (i.e. Wireless, Wireline)
- Filter Broadband Information by Service Provider
- Query Census Blocks

### Provider Use

- All of the above
- Edit Broadband Information via Secure Login
  - Multiple webinars were hosted by IOT and our web developer 39°north to train the broadband providers how to update their data. Each broadband provider was given their own unique login information. The website was then released to the public so that they can view the available provider information for their area.
  - Through this secure login, the original provider data may be modified to more accurately reflect the various broadband providers' territories.

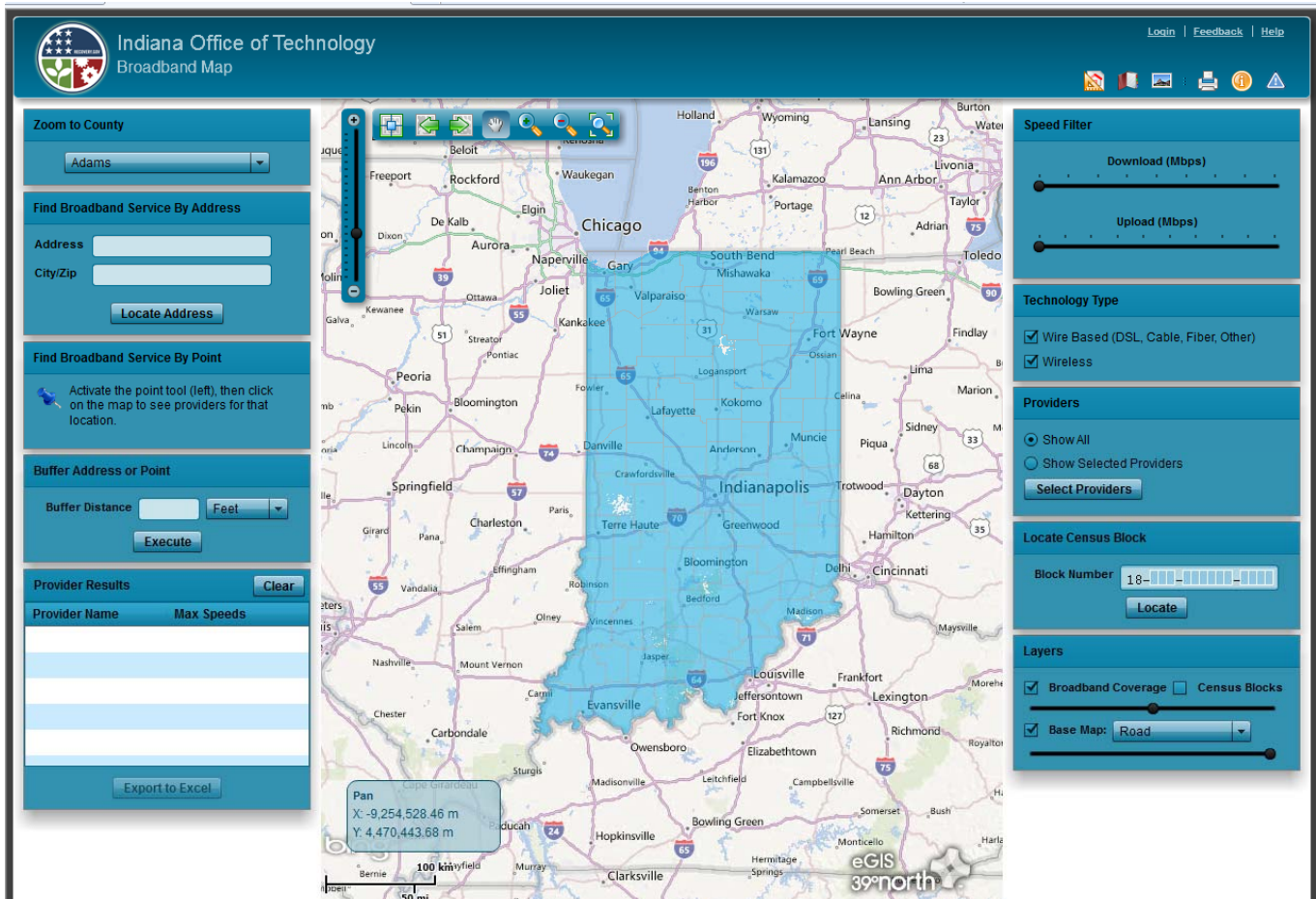


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## Address Level Data Collection

We continue to collect address level data. Indeed, as described above, Indiana is well on the way to creating address level reference data to facilitate the collection of address level broadband service availability, not just in census blocks larger than two square miles, but statewide. These data will be invaluable as the lowest common denominator to allow the construction of any geography in support of broadband map display and analysis. This expands the options for how to depict speed across multiple geographies, and facilitates the inquiry of service data at a given x,y.

We have 86 counties who are providing address data as a result of the BB map funding, with more signing up each week.



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We are a two-thirds of the way in our acquisition of new orthophotography imagery to serve as the foundation for all other geospatial data, including centerlines and address level data.

Here is a graphic showing our orthophotography flight schedule.



## Community Anchor Institutions

We identified community anchor institutions by cross referencing a statewide land parcel dataset with a data set from the Indiana Local Government Finance office containing, among other information, institution name, location by address, and use category. The results of this analysis have been included in previous deliveries for records containing name, location, and category at a minimum. These data, however, did not have sufficient broadband service information. Therefore, we have engaged a third party to survey the institutions to complete the attributes defined in the NOFA for these institutions. This data is included in our submission.



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The Indiana Office of Technology engaged Infogroup to identify and contact all anchor institutions in the State of Indiana. The goal was to determine broadband service and internet service providers that meet the definitions of "broadband" as outlined in the broadband mapping Notice of Funds Availability. The definition is inclusive of two-way data transmission with advertised speeds of 768 kbps downstream and 200 kbps upstream.

Infogroup had the ability to identify state anchor institutions and developed a script designed to gather the information required to answer to the requirements of the NTIA.

There data compilation process telephone verified all businesses, including those identified as anchor institutes, to ensure the highest level of accuracy with business name, business type and contact information. After compiling the list, Infogroup prepared a script and software to assist in capturing the necessary information. They then begin the telephone survey and data collection process and created a report in the tab-delimited text file format of the required information. This survey included institution name, complete address, latitude/longitude, category of institution, broadband service, technology of transmission and advertised downstream/upstream service speed where they are collected in a tab-delimited text file.