Hoosier Hospitality: Sharing Critical Geospatial Data in Indiana

The 4th Annual HAZUS Conference
August 25, 2010
Google: Jim Sparks

- County gov: 2 yrs.
- State gov: 5 yrs.
- University: 4 yrs.
- Private sector: 26 yrs.

- B.S. in Business Administration
- M.S. in Management
- Adjunct faculty – University of Phoenix, Indianapolis Campus

- Survey crew rod man
- Civil engineering draftsman
- County cartographer
- Computer aided mapper
- GIS Project manager
- GIS consultant
- GIO
INDIANAPOLIS, Ind. – Chief Information Officer Gerry Weaver today announced Governor Mitch Daniels’ appointment of Jim Sparks as the state’s first Geographic Information Officer.
The state GIS Officer shall do the following:

- Facilitate GIS data cooperation between 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.
- Develop and maintain statewide framework data layers associated with a statewide base map or electronic map.
- Except as otherwise provided in this chapter, provide public access to GIS data and framework data in locations throughout Indiana.
Indiana Geographic Information Office

Mandated by IC 4-23-7.3 to:
- Coordinate GIS among all government levels
- Create and distribute Frameworks Data
- Manage GIS Fund

Housed inside state government
Sits on IGIC Board

Per IC 4-23-7.3, IGIC will provide a State Data Integration Plan to the GIO for approval

Organized as a 501(c)(3) non-profit

Board of Directors:
- County Government (3)
- Municipal Government (3)
- State Government (3)
- Federal Government (2)
- Nonprofit (2)
- Commercial GIS Service Provider (2)
- Regional GIS Consortia (2)
- Surveyors (2)
- Universities (2)
- Regional Planning Commissions (1)
- Utilities (2)
- Critical Infrastructure (2)
- At Large (Any Sector or None) (4)

The objectives of IGIC are to provide for the coordination of Indiana GIS through dissemination of data and data products, education and outreach, adoption of standards, building partnerships, and the IndianaMap.

Projects & Initiatives

Data Integration Plan
- Data Sharing Initiative
- Orthophotography Program
- NHD Improvement
- Height Modernization
- Hazus Essential Facilities
- NHD Geo-Synchronization
- Statewide Framework Layers
- Broadband Map

IndianaMap ROI

The IndianaMap is a portfolio of projects that involve the collaborative efforts of federal, state, and local partners. The purpose of these efforts is to acquire, improve, and deliver a wide variety of Geographic Information Systems (GIS) data for Indiana.

The IndianaMap provides a viewing tool that can be used to view and query more than 220 layers of GIS data through the web. The available data include aerial photographs, land cover, reference layers, and layers related to infrastructure, demography, environment, hydrology, and geology.

Partners, Contributors & Stakeholders

Indiana Counties
Indiana Cities
Indiana Geological Survey
UITS, Indiana University
Surveyors
The Polis Center
The Private Sector
USGS
The Public
State Government
Federal Government
The IndianaMap

Vision: To create and maintain a comprehensive statewide geospatial data resource that:

• Leverages geospatial data assets to maximize benefit to Hoosiers (build once use many times)
• Uses the best available data from all levels of government, academia, and the private sector
• Is easily and freely available to the public for viewing or to download
Hoosier Hospitality ➔ Sharing (Data)

- Federal Government
- State Government
- Cities & Towns
- Private Sector
- Counties
- Universities
The IndianaMap Data Sharing Initiative

• Began with an a letter of invitation sent to all County Commissioners in summer of 2008
• Letter requested that counties participate in the IndianaMap (www.indianaMap.org) by sharing 4 GIS data layers
• Transfer technology = Web Feature Service
The IndianaMap Data Sharing Initiative

- In return, the Indiana Department of Homeland Security made $14,894 available to each county.
- About $5,000 to cover WFS set-up and hosting.
- $10k balance available for county GIS expenses related to creating, maintaining, or distributing the 4 data layers.
- In addition, Indiana Government, IGIC, IGS, and other partners have built and tested the infrastructure to homogenize, integrate, and transfer the 4 layers to the IndianaMap.
Data Elements

• Parcel data (excluding personal and assessment information e.g., names, phone numbers)
  – GIS Parcel Number (State number) as defined in 50 IAC 23-20-4
  – Parcel Number (County number) as defined in 50 IAC 23-20-4

• Point address data (excluding personal information e.g., names and phone numbers)
  – Address Number
  – Street Name Prefix
  – Street Name Suffix
  – State Name (IN)
  – Street Name Prefix
  – Street Name
  – Place Name (e.g., city, town, unincorporated area)
  – Zip Code

• Local governmental unit boundary data
  – Boundary Type (municipality, precinct, fire, school, tax districts, etc.)
  – Boundary Name (name/identifier of municipality, precinct, fire, school, tax districts, etc.)

• Street centerline data
  – Street name
  – Address maximum and minimum number ranges for left and right side of street, if available
IndianaMap Data Sharing Initiative
Collaborators

- Indiana Counties
- Indiana Geographic Information Council (IGIC)
- Indiana Department of Homeland Security (DHS)
- Indiana Geological Survey (IGS)
- University Information Technology Services, Indiana University (UITS)
- United States Geological Survey (USGS)
- Indiana GIS Center of Excellence (CoE)
- Indiana Department of Transportation (INDOT)
- Department of Local Government Finance (DLGF)
- State Data Center, Indiana State Library
- Indiana Business Research Center (IBRC)
- IndianaView Consortium
- Coalition of Universities for Spatial Information Sciences (CUSIS)
- Geographic Information Office (GIO), Indiana Office of Technology
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Data Sharing Initiative Status
August 23, 2010

- 85 Counties have committed to initiative
- 73 counties have been harvested
- 6,725 Jurisdictional Boundaries
- 466,841 Street Centerlines Segments
- 2,143,072 Address Points
- 2,741,120 Land Parcels
- Can be viewed or download from the IndianaMap
Early Value

These county data sets are planned components of:

• The New statewide State Police computer aided dispatch system
• The Secretary of the State’s “Who Are Your Legislators” application
• The Indiana Broadband Mapping project
Why this has worked (mostly)

• We have an active and organized statewide GIS community and the IndianaMap
• We (the GIS community) painted the vision and widely broadcast that vision
• We kept the initiative front and center
• We had many groups supporting the effort (GIO, IGIC, IDHS, County GIS Coordinators, State Police, Universities)
• These data are public records according to Indiana’s Public Access Counselor
• Money, money, money (if only a little)
Challenges And Why It Didn’t Work In 7 Counties

• Indiana’s APRA treats “electronic map” data differently – you can charge for copies “to cover costs for maintaining, upgrading, and enhancing an electronic map” in addition to charging the direct cost of making a copy.

• “This is my data!” “We spent a million dollars to create it and we are not going to give it a way.” “We don’t want business to make a profit from our work.”

• Privacy concerns.

• Concerns over on-going costs

• “We already provide an online viewer to our data.”
Next Steps

• Continue harvesting and publishing
• Identify quality and standards differences (IGIC Committees)
• Work toward resolving differences as it makes sense for each participating county. Is a road centerline the center of R/W or the center of pavement?
Next Steps - Bigger Picture

• Create a national address database and parcel map
• Employ crowd sourcing as another tool to keep data current
• Inverting the national geospatial funding model to facilitate rolling up to a national map
The Three Great Pyramids of Geographica