



GIS



INDIANA GEOGRAPHIC INFORMATION OFFICE



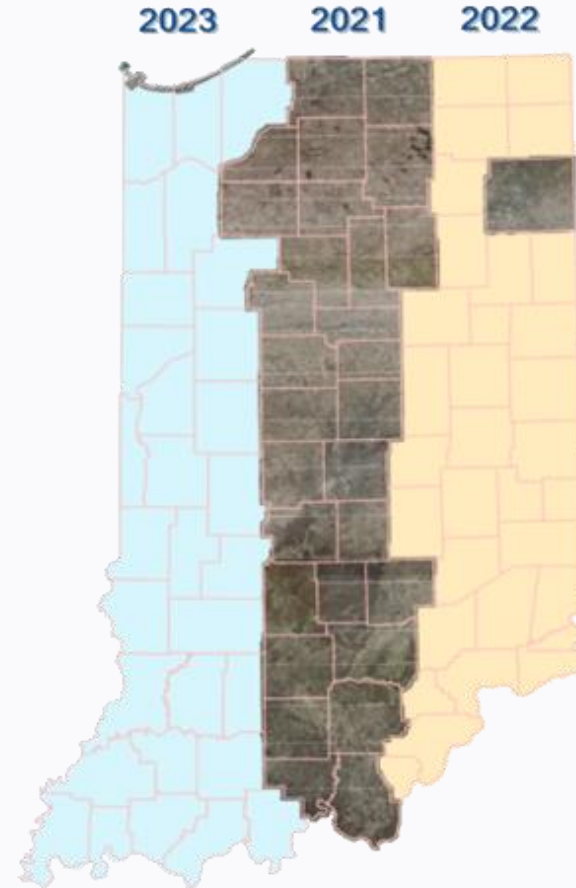
MT Imagery Summit | 2023

Megan Compton

Indiana Geographic Information Officer

Indiana Statewide Imagery Programs - Base

- **2021-2024 Ortho – 6”**
- 2016-2019 Ortho – 1’
- 2011-2014 Ortho – 1’
- 2005-2006 Ortho - 1’



Indiana Statewide Program - Specification

- **Base Products**

- 6-inch (15-cm) pixel resolution
- Tile 4 -Band (R,G,B, NIR) imagery
 - GeoTIFF uncompressed
 - ECW & MrSID compressed
- County mosaic MrSID 3-Band



Buy-Ups

Flexible statewide contract allows for state and local government to decide:

- Higher resolution imagery
- More frequent imagery
- Other products (ex. elevation contours)

All products shared with the State



Stakeholders

Dept of Transportation	Dept of Revenue	Dept of Natural Resources	Homeland Security	State Police	Economic Development Corporation
Dept of Environmental Management	Integrated Public Safety Commission	Office of Community & Rural Affairs	Utility & Regulatory Commission	Dept of Agriculture	Dept of Health
Dept Local Government Finance	Broadband	Engineering Firms	Survey Companies	Local Governments	Archeology
	811	Research	Universities	Utilities	

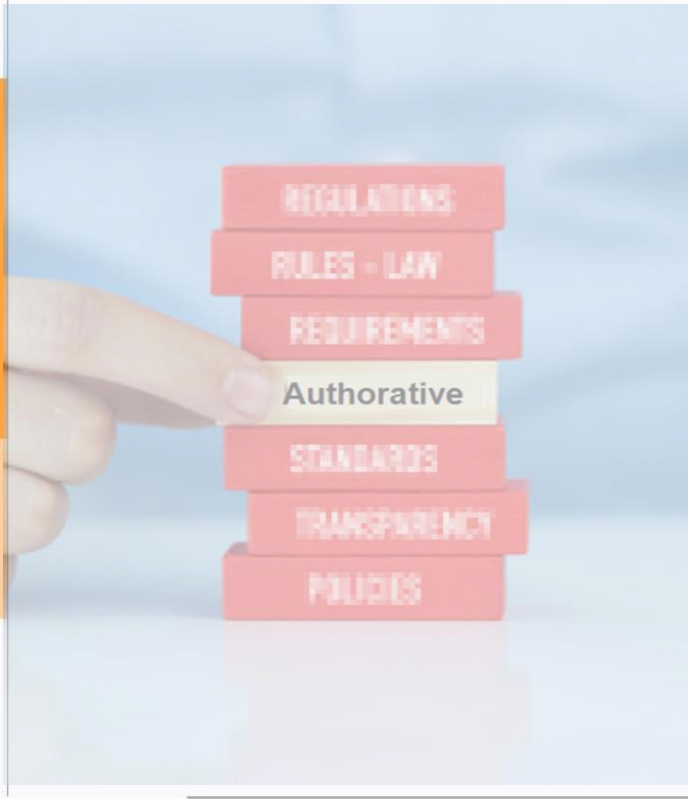
Why Statewide Imagery

"State imagery has been invaluable to our organization."

"Having aerial photography available gives police, fire, and EMS people a visual understanding of their surroundings and situational awareness."

"Statewide projects have helped fill in the gaps for years we might have not flown otherwise."

Imagery is Authoritative

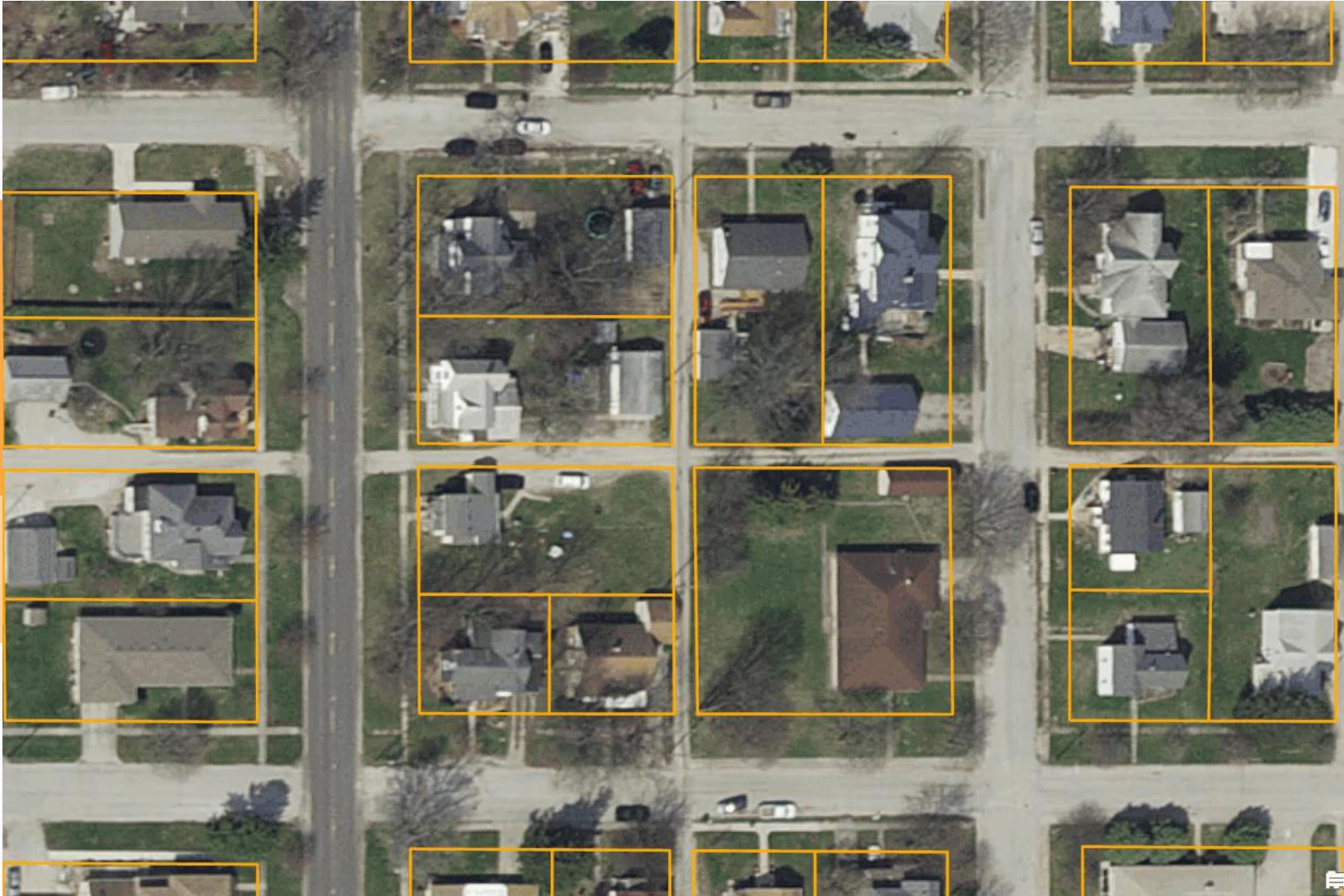


- Defined resolution
- Known accuracy
- Known time capture
- Professional-level QC verification meeting
State-mandated standards and specifications

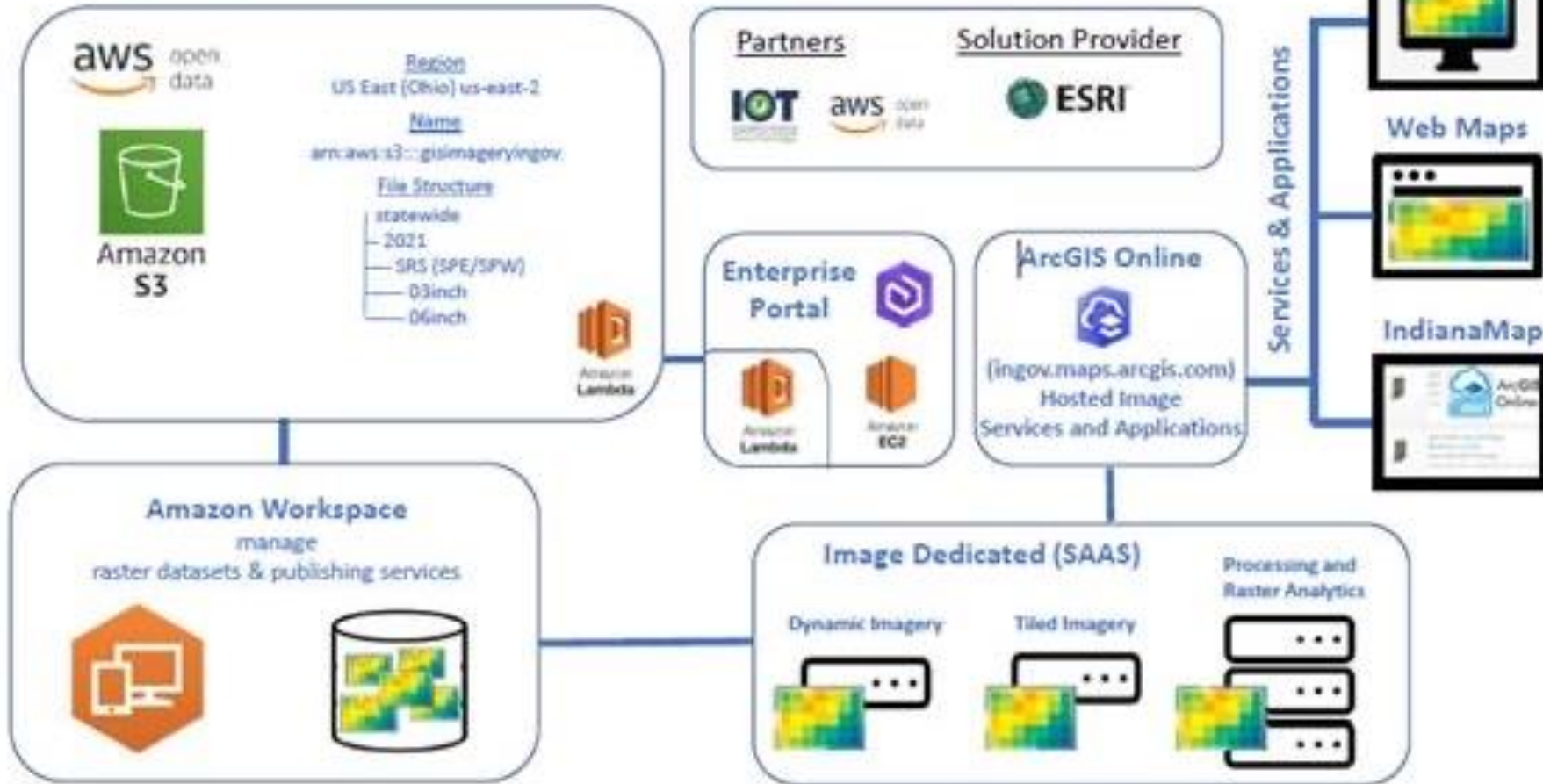
Imagery Comparison



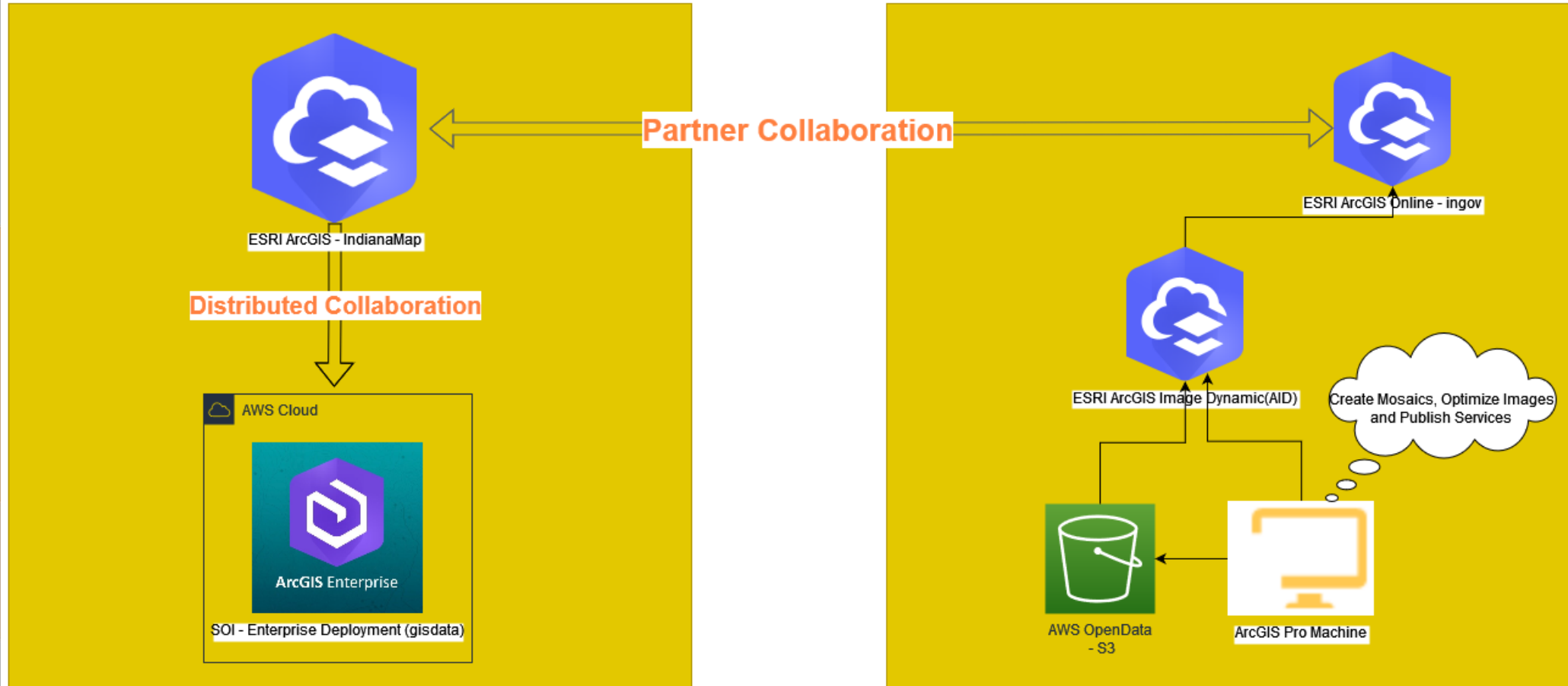
Imagery is Authoritative



Indiana's Imagery Deployment



State of Indiana Imagery sharing workflow using Partner and Distributed Collaboration



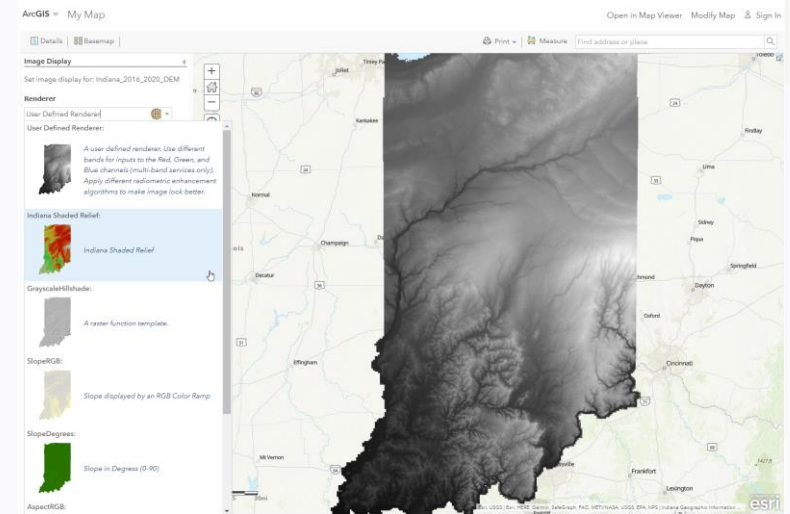
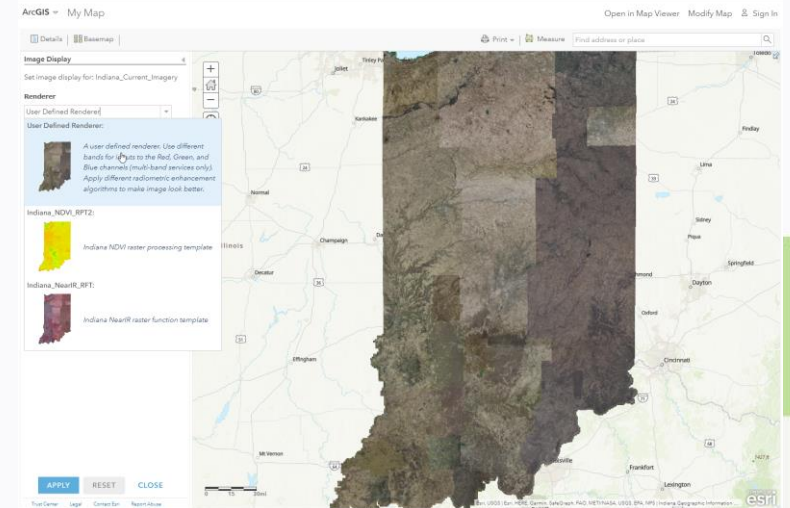
Accessing Dynamic Imagery Services

Access

- IndianaMap
- Custom Web Maps
- GIS Desktop Applications
- Rest Service

Explore Embedded Raster Functions

- Color Infrared
- Shaded Relief
- Hill Shade
- Slope



Accessing Imagery Download

Download Cloud Optimized GeoTIFF (COG)

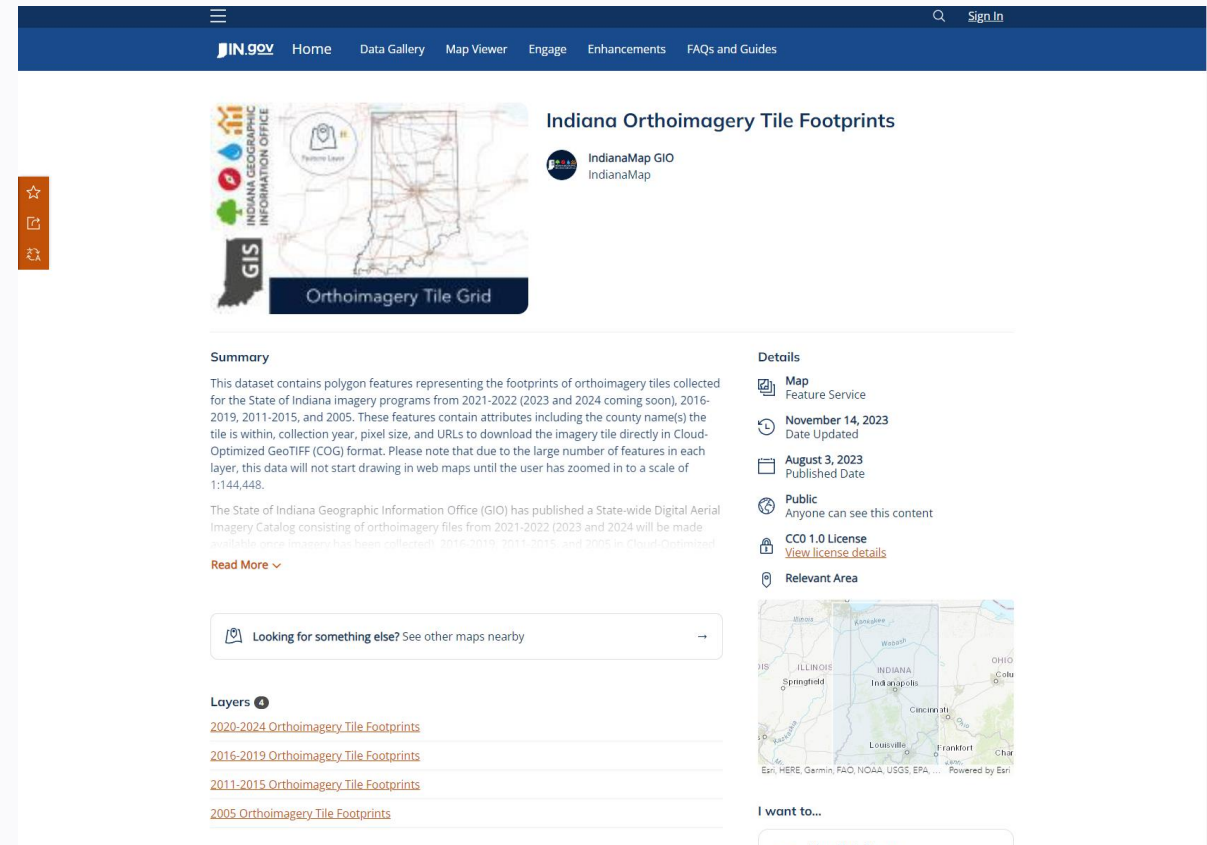
- All years of orthoimagery
- All years of DEM elevation

Using Footprint Feature Service

Filter by

- Year
- Resolution
- County

Imagery tile direct from AWS



The screenshot shows the IndianaMap GIO website interface. At the top, there is a navigation bar with links for Home, Data Gallery, Map Viewer, Engage, Enhancements, and FAQs and Guides. The main content area features a map of Indiana with a grid overlay, titled 'Orthoimagery Tile Grid'. To the right of the map, the title 'Indiana Orthoimagery Tile Footprints' is displayed, along with the IndianaMap GIO logo. Below the map, there is a 'Summary' section that describes the dataset as containing polygon features representing the footprints of orthoimagery tiles collected for the State of Indiana from 2021-2022 (2023 and 2024 coming soon), 2016-2019, 2011-2015, and 2005. The summary also mentions that these features contain attributes including the county name(s) the tile is within, collection year, pixel size, and URLs to download the imagery tile directly in Cloud-Optimized GeoTIFF (COG) format. A 'Details' section on the right provides information about the feature service, including the date updated (November 14, 2023), the published date (August 3, 2023), and the license (CC0 1.0 License). A 'Relevant Area' section shows a map of Indiana with a bounding box around the state. At the bottom of the page, there is a search bar and a 'Layers' section with links to different datasets: '2020-2024 Orthoimagery Tile Footprints', '2016-2019 Orthoimagery Tile Footprints', '2011-2015 Orthoimagery Tile Footprints', and '2005 Orthoimagery Tile Footprints'.

Building Footprints

- Statewide
- Generated from 2016-2020 lidar
- Nearly 4 million structures



GIS



INDIANA GEOGRAPHIC
INFORMATION OFFICE

Game changers

State partners

- QA/QC INDOT Aerial Surveys Team

Engaged user base

- outreach and coordination for priorities/needs
- Non-licensed – Open data!

Stable funding

- State GIS Fund in annual state appropriation
- Talk about the capabilities

GIO Imagery Program Support

- Project management
- Storage and Delivery

Coming soon

- 2025 – 2028 Imagery Collection (6 inch or 3 inch resolution)
- 2025 – 2032 Elevation collection (Quality Level 1 lidar)
- Optimized data delivery and accessibility -
 - Findable, Accessible, Interoperable, Reusable (FAIR)
 - Fit for purpose
 - Cloud – optimized GeoTIFFs
 - Growing Amazon Web Service (AWS) storage
 - Expanding engagement with higher education

Key Considerations for State Imagery Program

- Collection
 - Who is going to use it, and for what purpose?
- Processing
 - QA/QC capacity and standards?
- Hosting
 - State-level centralized sharing – capable of multiple sources/inputs?
- Distribution
 - Open data should be accessible
 - Education – Outreach

Contact info for follow up

- Shaun Scholer, Program Director
sscholer@iot.in.gov
- Marianne Cardwell, Deputy GIO
mcardwell@iot.in.gov
- Megan Compton, GIO
gio@iot.in.gov

Image services

<https://di-ingov.img.arcgis.com/arcgis/rest/services/DynamicWebMercator>