GeoPlatform.gov Features and Direction

October 29, 2019

Joel Schlagel
GeoPlatform.gov Ambassador, USACE
Event-driven workflows for inter-agency data sharing

Enabling “FAIR” (Findable, Accessible, Interoperable, Reusable)...

- Agency Hosted Services
- AGOL Publishing
- Data.gov
- Others

Register your data, services, maps, applications

GeoPlatform.gov

Registration

Curation

Utilization

Community

Community

Community

Google Search

StoryMaps

Models

Analysis

Decisions
GeoPlatform.gov Today

October 29, 2019

John Davidson
GeoPlatform Technical Team,
Image Matters LLC
The centerpiece of US spatial data infrastructure

Aggregates geospatial resources, including GIS datasets, web services and layers, maps, web applications, websites, and more

Employs OGC, ISO, W3C and other IT standards to ease interoperability issues

GeoPlatform’s collaboration capabilities enable users to share data easily
GeoPlatform Cloud Hosting Services

A managed hosting service for geospatial assets of FGDC member agencies

- Amazon (AWS) public sector and GovCloud managed environment.
- ESRI and OpenGeo technology stacks and managed services.
- FISMA Moderate managed software
- Leveraging cloud GIS deployments
  - FEMA
  - Army Corp
  - USGS
  - BLM
  - FWS
  - DOT/Census
  - DOI
  - NPS

https://communities.geoplatform.gov/gpcustomers
A Day in the Life of GeoPlatform...

I’m a first time visitor to the GeoPlatform...

I’ve got a new web service to register so others can access...

I’m looking for authoritative levee data...

I’ve got a map I want to load and enhance for my people to see....

Who’s got Lidar acquisition projects planned or underway for the Mid Atlantic coast?

Our multi-agency workgroup needs an online community to share the portfolio of resources we’re curating...

I’ve got a bunch of maps I want to share in my Community Space...

Which of the services in the portfolio are not performing so well?
I’m a first time visitor to the GeoPlatform...

- **View tutorial videos on YouTube**
- **Explore Communities**
- **Checkout National Geospatial Data Assets**
- **About, Help, Resources & References**
- **Sign-up, sign-in**
- **Expand Menu**
GeoPlatform Object Editor

I’ve got a new web service to register so others can access...

Create new Service Object from scratch (just need its URL)

https://oe.geoplatform.gov

Or register a new Service Object from metadata, spreadsheet, or ArcGIS Online
Object Editor

Upload metadata from URL or local file

Import metadata from data.gov

View, Edit, and Link using Object Editor

Export to ISO 19115 metadata

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GeoPlatform Search

I’m looking for authoritative levee data...

Search from GeoPlatform Portal or from within Community Spaces

Found Datasets, Services, Layers, Maps with the phrase “Levees”

Found the Authoritative NGDA Dataset

https://www.geoplatform.gov/geoplatform-search/#/?keywords=NGDA&q=Levees
Who’s got Lidar acquisitions planned or underway for the Mid-Atlantic coast?

https://data.geoplatform.gov/?progress=planned&h=Marketplace&q=Lidar
GeoPlatform Map Viewer

I’ve got a map I need to quickly load, add some layers, and share for my people to see....

https://viewer.geoplatform.gov/

Upload a Web Map Context document...

New map created from WMC document... add more layers and save.
GeoPlatform Map Manager (Galleries + Communities)

I’ve got a bunch of maps I want to show in my Community Space...

Create or pick a Gallery

Embed the Gallery iFrame with other content in your Community Space or any web site...

https://maps.geoplatform.gov/galleries

https://communities.geoplatform.gov/ccb-demo/hifld-data/
Our multi-agency workgroup needs an online community to share the portfolio of resources we are actively curating...

https://communities.geoplatform.gov/ccb-demo
Which of the services in the portfolio are not performing so well?

https://dashboard.geoplatform.gov/sd/explore
What’s new in 2019?

**National asset integration, open interoperability, community engagement, search…**

**Portal Makeover** [https://www.geoplatform.gov](https://www.geoplatform.gov)
- Fresh content, New look, 508 compliance, Activity-oriented (create, search, collaborate)

**Community Tool Kit (CTK)** [https://www.geoplatform.gov/help/community/](https://www.geoplatform.gov/help/community/)
- Widgetized CCB Theme + new and updated Plugins
- Best-in-class 3rd-party Theme (Astra and Elementor)

- Utilization dashboards for GeoPlatform Content, Assets, and Communities

**GeoPlatform Unified Search** [https://www.geoplatform.gov/geoplatform-search/](https://www.geoplatform.gov/geoplatform-search/)
- Google Dataset Search (in final stages of testing)

**Earth Observation Explorer (EOX)** [https://eox.geoplatform.gov](https://eox.geoplatform.gov)
- Cataloging and searching Earth Observation products

**Disaster Community Vocabulary Module**
- SKOS vocabularies from the FEMA ESFLG Model and Data Inventory (MODI)
More Portal Experience

- Portfolio Explorer
- Resource Pages
- Map Preview
- Did you know?

Did you know?

- CREATING VECTOR TILE LAYERS
  October 2, 2019
- CREATING GEOJSON FEED LAYERS
  October 2, 2019
Plugins Galore

Register Resource

Asset Details

Asset Carousel

Map Plugin

GeoPlatform Map Resources

HOME > GEOPLATFORM RESOURCES > MAPS

RECENT MAPS

Map by jamieson3ne | created Jul 11, 2019 | last modified Jul 11, 2019

GAP species range data are coarse representations of the total area within which a species occurs. In other words the geographic limits within which a species can

Amtrak Rail Lines and Stations
Map by lindsayljlj | created Mar 7, 2019 | last modified Jul 10, 2019

This map shows the Amtrak rail lines and stations throughout the United States.

Hourly Forecast Precipitation & Stream Gauges
Map by bndivison | created Aug 30, 2017 | last modified Jul 7, 2019

A map showing the hourly precipitation forecast along with current stream gauge levels.

Enriched Hurricane Force Probability 8/25
Map by bndivison | created Aug 30, 2017 | last modified Jul 7, 2019

Enriched Hurricane Force Probability 8/25
New Dynamic Community Themes & Plugins

Industry-best 3rd party theme: Astra Theme + Elementor Builder

• Wide (unlimited) range of layouts that can be further customized
• Compatible with GeoPlatform plugins
• Quick and easy front-end editing.

https://github.com/GeoPlatform/CCB-Plugins

https://wordpress.org/plugins/search/GeoPlatform/

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Vector Tile Layers

Display Vector Tile data in GeoPlatform Maps

- Pluggable layer support; including vector tiles
- Protobuf Vector Tile layers supported
  - NC/VA Wetlands
  - NPS Boundaries
  - PADUS Manager layers (Esri): 1, 2, 3
- Support for MapBox Style Specification
  - Upload JSON containing style definition
  - Reference hosted style definition (e.g., Esri)
- Works in all GeoPlatform “mapcore” powered applications

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Vector Tile Layer Styling

- Support MapBox Style Specification (limited) as a way of defining styles for vector tile layers
  - Styling based upon feature properties (MB expressions, Ex)
  - Filtering features based upon properties (MB filter expressions, Ex)
  - Line colors, fill colors, working on fill patterns

- Upload and associate JSON style files
  - Using auxiliary resources (“Styling” and “Default Styling” roles)
  - Example

- Fetching JSON style from hosting service
  - Esri REST Tile Server Example
Overview
- Usage by application, asset, community
- Side by Side application stats

Application Stats
- Usage by resource type
- Referrers
- Page views
- Returning Visitor Counts

Asset Stats
- Most used
- Full search functionality
- Usage over time
- Top Searches used to find resource
- Usage by type
- Usage by application

Community Stats
Earth Observation eXplorer (EOX) (https://eox.geoplatform.gov)

- Updates for ISO 19115-2 mappings for import and export
- Harvest EO Product metadata from 3rd-party catalogs
- Augment metadata from EO Vocabularies for products, instruments, and platform
- Find relevant EO Products
- Access relevant EO Products
- Identify gaps in availability of relevant EO Products
- Access other EO catalogs/holdings to order or acquire EO Products
Word stemming – reduce words to their base or root form (e.g., conflate plurals and singulars as synonyms)

Factor “currency” based on object’s “modified date” (note: can’t rely on resource “issued date” or “temporal extent”)

Factor frequency of key-phrase, weighted by “locale” … e.g., occurrence of phrase in Title is weighted more than in Description field which is more than Keyword fields
Unified Simple Search: Portfolio & Content

One query

Portfolio Results

Portal Content Results
Resolvable URIs and Machine-Ready Encodings

- Key enabler for Google Dataset Search and other LOD-enabled apps
- All GeoPlatform assets have resolvable URIs and machine-ready encodings (json, jsonld, rdf, ttl, n3, nt)

https://www.geoplatform.gov/resources/maps/2cd60a7d1d3514022795e45e578fc90c/

JSON-LD:
https://ual.geoplatform.gov/api/items/2cd60a7d1d3514022795e45e578fc90c.jsonld

RDF:
https://ual.geoplatform.gov/api/items/2cd60a7d1d3514022795e45e578fc90c.rdf
Define Disaster Domain Vocabularies
- Used to consistently tag Disaster Portfolio Resources for improved user navigation and search experiences
- FEMA MODI spreadsheets reformed to SKOS vocabs for ESFs, RSFs, EEIs, Lifeline, Core Capabilities, Hazards, Emergency Phases, keywords, etc.

Label Assets
- Register new Resources with MODI labels
- Enrich existing Resources with MODI labels

Find, Share, Present and Access Resources
- Find, organize, and present relevant resources
- Enable collaboration/communication/sharing around the curated resources

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More coming…

More plugins and theme customizations
Streamline metadata workflows and portfolio management tools
Support for CSDGM import
Automated synchronization with data.gov metadata
Integrations with NASA CMR (DAAC Catalogs)
Streamlined curation of “authoritative datasets”
Open Data access with Vector Tiles and GeoPackage
New and updated Resource Performance Dashboards
Extend Open API and the CTK of open-source plugins
Expand and strengthen partnerships and cross-government collaborations
Enrich the NGDA Theme community experience

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<table>
<thead>
<tr>
<th>Time</th>
<th>Topic</th>
<th>Speaker</th>
</tr>
</thead>
<tbody>
<tr>
<td>10:30 - 12:00</td>
<td>Authoritative Data Panel &amp; Community Discussion</td>
<td>Joel Schlagel/ David LaBranche/ Lorna Schmid/ James Irvine/ John Davidson/ Thomas Springsteen</td>
</tr>
<tr>
<td>13:00 - 14:00</td>
<td>GeoPlatform Disaster Community Partnership</td>
<td>Chris Vaughan &amp; NLT Team</td>
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<tr>
<td>14:00 - 14:30</td>
<td>GeoPlatform Tools for Emergency Response</td>
<td>Lara Duffy &amp; Jacob Stephens</td>
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<tr>
<td>14:30 - 15:00</td>
<td>NASA Resilience Community experience</td>
<td>Jeanné le Roux</td>
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<tr>
<td>15:00 - 15:30</td>
<td>Networking Break</td>
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<tr>
<td>15:30 - 16:00</td>
<td>Open Discussion</td>
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<tr>
<td>16:00 - 16:15</td>
<td>Closing Remarks</td>
<td></td>
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</tbody>
</table>
Thank You!

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