

Geospatial Platform Update



Jerry Johnston
FGDC Steering Committee
16 June 2016



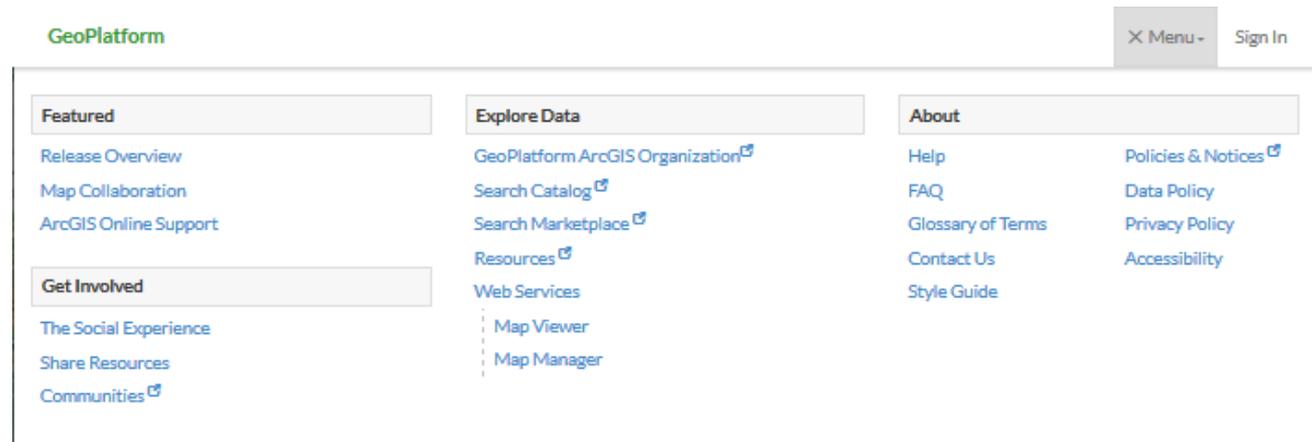
What we've accomplished in past 18 months

Towards high-performance web services for core geospatial assets (NGDA)

- Building out core services for our SaaS/PaaS
- Building better tools for managing our assets
- Laying foundations for secure, reliable, scalable, hardened services in the Cloud
- Starting to make it easier for people to find the right resources for the right task
- Building and testing core services for developers to access platform for open data and open services



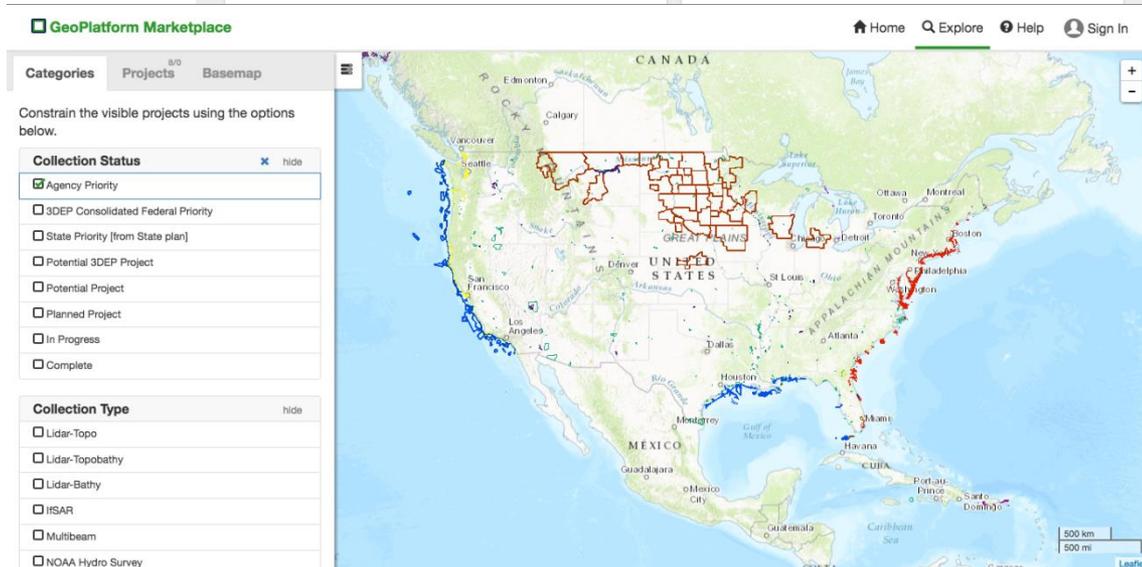
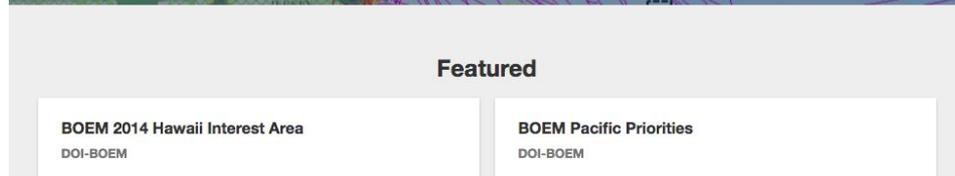
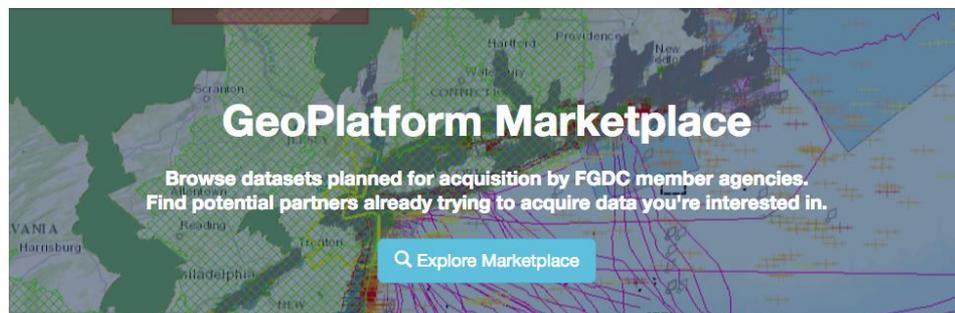
- Dashboards
- Asset Registries
- Map Viewers
- Shared Maps
- Web Service APIs





Investment Efficiency

- **GeoPlatform Marketplace**
 - Quickly post and easily search for planned data acquisitions
 - Expand opportunities to partner on data acquisitions (reducing costs and duplicate efforts)
 - Initial prototype implementation supports USGS 3D Elevation Program
 - **Content describing multi-agency IDIQ data acquisition vehicles to be posted to geoplatform.gov shortly**



Data Acquisition Services

Did you know that several federal agencies hold geospatial data acquisition contracts that can help you meet your data requirements? To help our partners more quickly and easily acquire geospatial data, we are sharing summary information on these programs.

On this page, you will find a short list of geospatial data and services acquisition contract vehicles (IDIQs) that are available to federal agencies, and in some cases, our partners outside the federal government. In addition, there is a summary of each contract mechanism, and a link to access more detailed additional information.

More geospatial data acquisition tools will be added in the near future. If you are a federal agency representative who would like to have one or more of your contracts listed on this site, [please let us know!](#)

USGS Geospatial Product and Service Contracts (GPSC)

The National Geospatial Technical Operations Center (NGTOC) of the USGS administers the GPSC which are a suite of contract vehicles that can accommodate activities related to standard, nonstandard, graphic, and digital cartographic products that are flexible enough to be used by other Federal, State, and local agencies.

Services provided include: photogrammetric mapping and aerotriangulation; orthophotography; thematic mapping; digital imagery applications; IFSAR and LiDAR; geographic information systems development; surveying and control acquisition, including ground-based and airborne GPS.

[Learn more](#) 

NOAA Coastal Geospatial Services Contract Vehicle

My Account



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US Department of the Interior

My Recent Resources



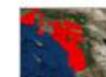
[my congressional district](#)

Mar 11, 2016 2:16pm



[INKY Super Gages](#)

Mar 11, 2016 1:47pm



[Gnatcatcher Survey Locations](#)
2/11/16

Feb 26, 2016 9:50am

★ Featured Services





Performance Dashboard

- Tools to measure, monitor, and report on NGDAs and services
- NGDA Dataset Lifecycle Maturity Assessment survey tools
- Service Checker



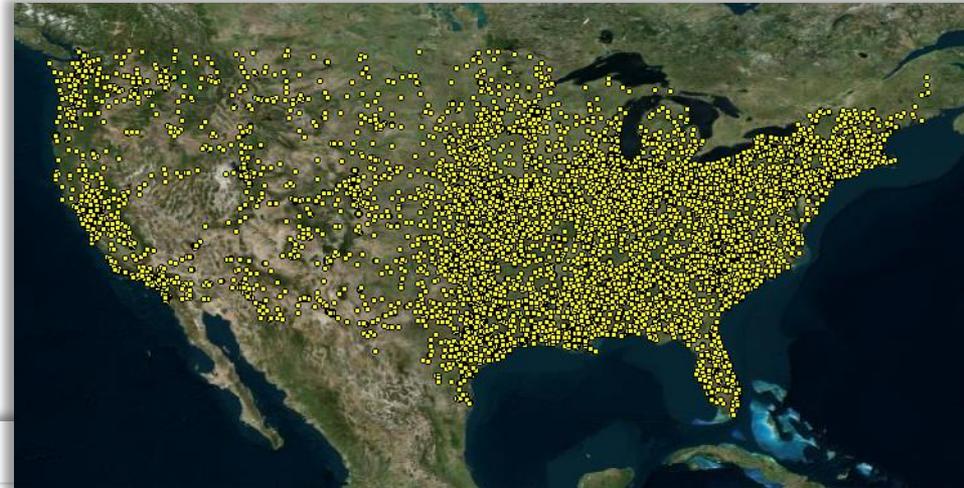
Performance Dashboard - Reliability



GeoPlatform Performance Dashboard

Dashboard Manage Help Jeff Harrison

Dataset Name	Reliability	Speed	Category	Agency
Protected Areas Database of the United States (PADUS) - Combined: Version 1.3	2/5	5/5	Cadastre	DOI-USGS
Shuttle Radar Topography Mission (SRTM)	5/5	5/5	Elevation	DOI-USGS
Terrestrial Ecosystems of the Conterminous United States	4/5	5/5	Biota	DOI-USGS
U.S. Geological Survey Gap Analysis Program Species Distribution Models	4/5	5/5	Biota	DOI-USGS
U.S. Geological Survey Gap Analysis Program Species Ranges	4/5	5/5	Biota	DOI-USGS
USGS National Geologic Map Database Collection	3/5	5/5	Geology	DOI-USGS
USGS National Structures Dataset	4/5	5/5	Real Property	DOI-USGS
Watershed Boundary Dataset (WBD)	2/5	5/5		



GeoPlatform Performance Dashboard

Service status : USGS National Structures Dataset

Start Date:

02/06/2016

End Date:

03/07/2016

99 results

5 per page

1

2

3

4

5

»

Sort

Timestar

↓

Timestamp	● Reliability	○ Speed
03/07/2016 02:31:10 PM	99.8	0.26s
03/07/2016 10:48:22 AM	99.8	0.26s
03/07/2016 10:21:49 AM	99.8	0.26s
03/07/2016 02:21:46 AM	99.84	0.2s
03/06/2016 06:21:41 PM	99.84	0.2s

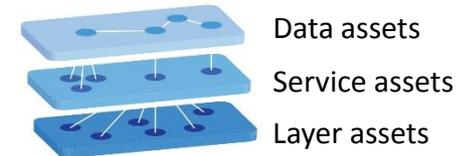
Reliability of USGS National Structures Service



What we are planning for next 12 months

Achieve the High-Performance Web Services experience from Cloud...

- Implementing *Registry+*, our new central hub for finding and using significant GeoPlatform / NSDI resources
 - ❖ Plan to greatly enhance discovery
 - ❖ A unified registry for core GeoPlatform business objects
- Fixing logical consistency (schema, syntax), semantic consistency, and access issues in our metadata holdings
- Improving capabilities for monitoring and tracking health & status of services
- After rigorous testing and trials, start to roll out open service hooks for developers
- Want developers implementing and contributing back open source components that leverage and extend the GeoPlatform ecosystem





Enhancing Discovery and Use

Tackling the challenges of finding just the right fit-for-purpose resource from amongst many thousands of candidates

- Prototyping better ways for people to find exactly what they need, quickly and effectively, in a vast ecosystem of GeoPlatform resources
- Exploring ways to enhance metadata efficiently
- Ensuring efficient and effective ways for developers to access GeoPlatform resources machine-to-machine (Registry+)
- A peek into the future – Computer-assisted Open Map sharing (Open Map and Layer discovery and access)
- Stay tuned.....



Conclusion

GeoPlatform is helping advance the NSDI by enabling users to:

- ❖ ***More easily find existing maps and data:*** Semantic search / Knowledge graphs will help users surface the right content more quickly and easily
- ❖ ***Get access to more high quality NSDI services:*** Cloud hosting offerings have the ability to change the game in terms of making high quality data available
- ❖ ***Understand (and improve!) the quality of the NSDI services:*** Service status checker and performance dashboard can continuously monitor the component services of the distributed NSDI
- ❖ ***More easily share data, tools, maps and collaborate:*** GeoPlatform offerings bring collaboration and analytics tools at scale to end users in all sectors

Thank you



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 Backup Slides

Draft services summary

- **Explore Data Acquisition Services**

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<http://geodatacontracts.er.usgs.gov/>



NOAA Coastal Geospatial Services Contract Vehicle

The contract is designed to allow acquisition of data and tools acquired and developed through this contract must be used for coastal resource management applications is managed by the NOAA Office for Coastal Management in Charleston, South Carolina to and is classified as indefinite delivery, indefinite quantity (IDIQ) multiple-year task orders. A memorandum of understanding with NOAA is required to use this contract.

Services provided include: Thematic mapping; a wide range of data acquisition (aerial, satellite including LiDAR, IFSAR, multispectral and hyperspectral imaging); spectral image processing analysis and interpretation; topographic and bathymetric product generation; photogrammetric mapping, aerotriangulation and orthophotography; cadastral mapping

<https://coast.noaa.gov/idiq/geospatial.html>



Army Corps of Engineers Center of Expertise For Photogrammetric Mapping

The U. S. Army Corps of Engineers Center of Expertise for Photogrammetric Mapping provides contracts for rapid response, full service photogrammetric mapping support for the USACE as well as other Federal agencies via ten (10) IDIQ A-E contracts. Project funding is on a cost reimbursable basis ranging from a simple fund transfer to interagency funding via a signed Memorandum of Agreement.

Services provided include: Project planning and specification; photogrammetric map compilation; LiDAR data collection and exploitation; photo interpretation; GIS development; image acquisition; A-E Contracting (CONUS and OCONUS)

<http://www.mvs.usace.army.mil/Missions/CentersofExpertise/PhotogrammetricMapping.aspx>