# Changing Climate, Changing Data: Exposing Climate Data to New Users Through GeoPlatform.gov's Resilience Community

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## Introduction

- Over 700 climate related datasets were curated by subject matter experts into 9 thematic areas as a part of the Climate Data Initiative (CDI) [1].
- NASA was tasked with maintaining the collection's data inventory and supporting web pages at Data.gov/climate.
- Today, the Data Curation for Discovery (DCD) team at MSFC continues to support the CDI collection.
- In order to expose the collection to a new and growing user community, the DCD team has partnered with GeoPlatform.gov to develop the Resilience community.
- The Resilience community serves as an interactive, topically-focused web portal that further promotes and shares CDI web content, datasets, services, maps, and other tools relevant to global resilience and change.
- This poster focuses on the team's efforts to leverage GeoPlatform's semantic applications to link CDI objects within the platform to improve discoverability. This poster also provides insights as to how this effort may serve as an example for building and expanding future Geoplatform.gov communities..

## GeoPlatform Portfolio Model

- The GeoPlatform is a Federal Geographic Data Committee (FGDC) initiative that enables the sharing of federal geographic data, maps, and online services for use by the public and by government agencies.
- The GeoPlatform Portfolio Model [2] treats datasets, web services, layers and maps as separate objects that can be linked together.
- The model incorporates elements of RDF, FOAF, SKOS, DCAT, PROV-O, Dublin Core, ISO-19115, and other standards used in information technology. In this way, objects align and are interoperable with a broad spectrum of spatial and non-spatial applications and technologies.

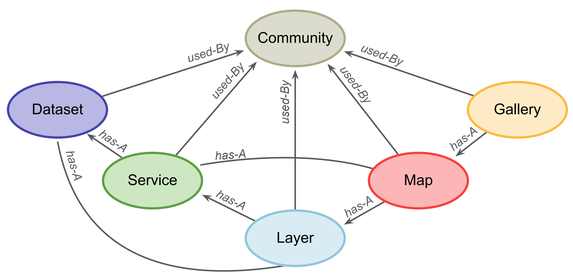



***Figure 1:*** The GeoPlatform Portfolio Model allows the types of objects to exist separately while connecting and interacting with one another using various semantic applications.

## Curating the CDI Portfolio

- ISO 19139 metadata records are imported from Data.gov into the GeoPlatform.
- DCD curators use GeoPlatform's portfolio curation tool, Object Editor, to establish a network of linked portfolio objects.
- Objects are then annotated with the CDI theme tags. The tags are registered in the GeoPlatform as SKOS concepts and aid users in filtering the collection.

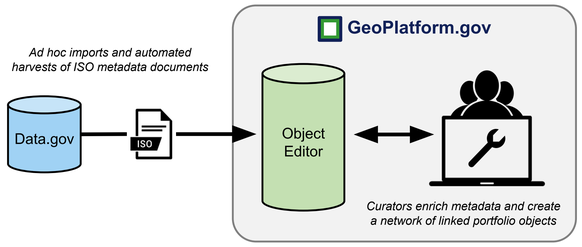



***Figure 2:*** Illustration depicting routine curation process for Resilience objects.

## Maintenance and Management

- Curators automate routine QA checks to ensure the collection remains visible on GeoPlatform.gov.
- Web services in the community are registered in the FGDC Status Checker which alerts curators when services are no longer working.
- The community's web presence is powered by WordPress, allowing curators to easily maintain and update content regularly.

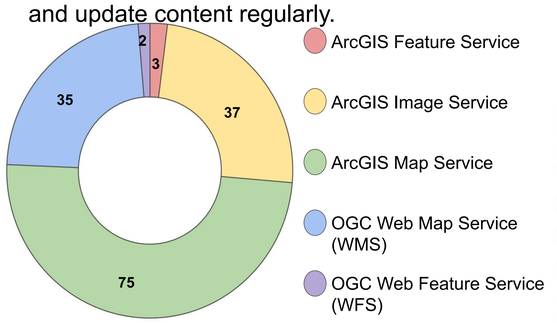


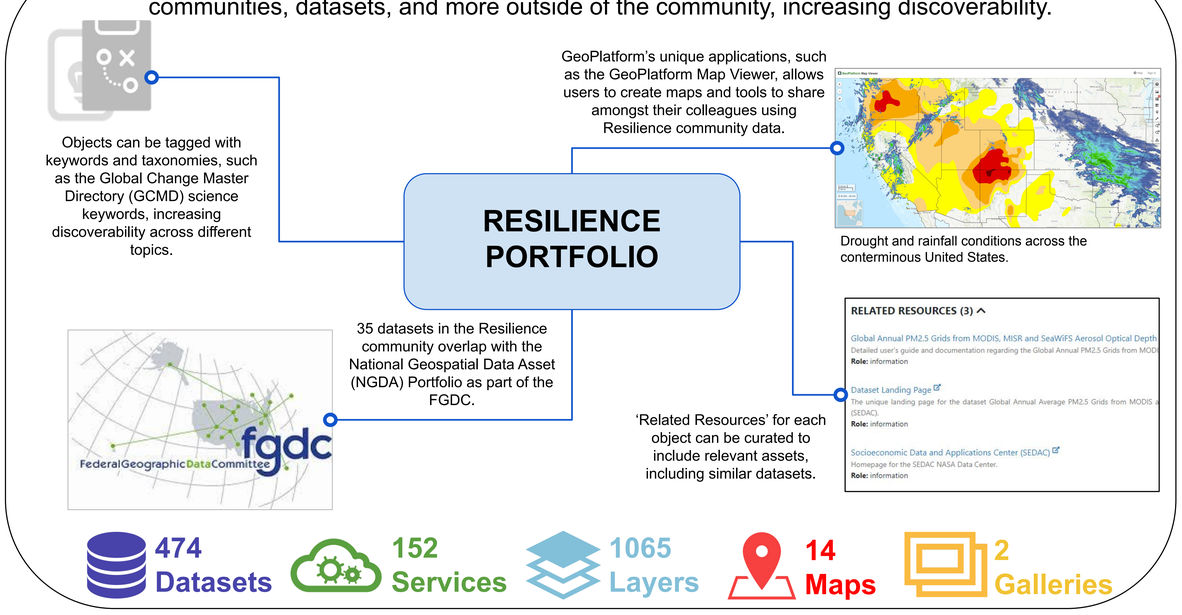

***Figure 3:*** The total amount of services and their respective types registered in the community.

## Conclusions

- The CDI collection is currently being maintained on both Data.gov/climate and the newly developed Resilience community on GeoPlatform.gov.
- Curators ensure that the collection remains discoverable and accessible to a growing, multidisciplinary user community.
- Utilizing GeoPlatform's portfolio model, the Resilience community has the capacity to connect with other datasets, services, keywords, and other communities, such as the sixteen NGDA themes in their portfolio.
- With innovative tools and applications, users can manipulate and enrich Resilience data, further promoting GeoPlatform's open data philosophy and enabling discovery.
- Incorporation of automated methods assists curators in keeping the collection visible and up to date with the latest versions.

## Resilience Community

GeoPlatform's open data philosophy allows the Resilience portfolio to be linked to concepts, communities, datasets, and more outside of the community, increasing discoverability.




## Resources

- Resilience Community Page: https://communities.geoplatform.gov/resilience/
- CDI Presence on Data.gov: https://www.data.gov/climate/
- FGDC Status Checker Report: https://statuschecker.fgdc.gov/main-report/impact_161

## References

[1] Ramachandran, R., K. Bugbee, C. Tilmes, and A. P. Privette, 2016: Climate data initiative: A geocuration effort to support climate resilience, *Comput. Geosci.*, **88**, 22–29, https://doi.org/10.1016/j.cageo.2015.12.002.

[2] https://www.geoplatform.gov/geoplatform-portfolio-model/

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