Engagement Post-mortem
The GAGE project at UNAVCO

Josh Drake and Doug Ertz
The GAGE project is one of NSF's two premier geophysical major facilities supporting geoscience and geoscience education. Operated by UNAVCO, it provides support to the NSF investigator community for geodesy, earth sciences education and researchers. GAGE is responsible for maintaining GPS and other instruments used to measure the movement of earth's tectonic plates. Data collected is then distributed as both raw and product data to researchers and the public.
Engagement Leads

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1 Engagement Goals
Design and implement a proof of concept solution
Produce resources for the MF community

2 Engagement Process
Interviews
Investigation, Design and Planning
Implementation

3 Obstacles and Solutions
GAGE Transition
OIDC implementation considerations
Integration with new and legacy systems
Engagement Goals

1. Produce and Implement a Proof of Concept Design
   - Investigate potential tools and services
   - Provide GAGE leadership with implementation recommendations
   - Implement and test proof of concept design

2. Provide resources to assist the larger NSF Major Facility Community
   - GAGE Engagement Final Report (Feb 2021)
   - Cookbook Recipe for tracking identity with OIDC (planned 2022)
1. Interviews
Summer 2020 - interviewed owners of various GAGE services and systems

2. Investigation, Design, and Planning
Considered products from CIlogon, COmanage, Auth0, Globus Team and more
Modeled the GAGE organization in COmanage and mapped key workflows using various tools and services

3. Final Design Decisions and Implementation
Punted on an OIDC implementation method
Designed workflows around using CIlogon as identity provider and COmanage as identity registry
Engagement Obstacles

1. Ch-ch-ch-changes
   GAGE currently undergoing rapid changes, both administratively and technologically

2. Time and Effort
   COVID 19 - online only engagement, discovery phase extended and incomplete OIDC implementation complexities, deciding between passive/active design
   Application integrations required more development than time allowed for
Engagement Impacts

1. Identified opportunities to leverage federated identities in GAGE researcher data portal and legacy systems.

2. Designed and implemented a working proof of concept for delivering custom OIDC attributes for GAGE to track by utilizing federated identities.

3. Provided recommendations on how and where to focus resources as GAGE transitions to cloud environment and begins merger.
Q&A Discussion
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