



# Engagement Post-mortem

The GAGE project at UNAVCO



Josh Drake and Doug Ertz



# GAGE

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## Mission

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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



**Doug Ertz**

Project Manager III, UNAVCO



**Josh Drake**

Senior Security Analyst, IU CACR

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)

## — Engagement Process —

### 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

The background of the slide features a dark, grainy photograph of a large crowd of people at a concert or event. Many hands are raised in the air, some holding up phones to take pictures. The scene is dimly lit, with bright lights visible in the distance.

# Q&A Discussion



# Learn More

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