

# KHOA Beta Gazetteer - GEBCO Gazetteer Interoperation

March 17, 2022

SCUFN 35.1

Paris, France

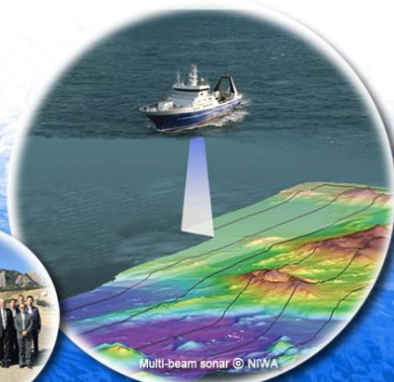
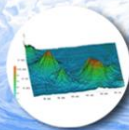
Kyung Chul Park  
KHOA  
KHOA Operational Webservices

Woo Ju Kim  
KHOA  
KHOA Operational Webservices

Chris Slater  
NOAA  
GEBCO Gazetteer

## GEBCO Sub-Committee on Undersea Feature Names Online registration System

- Create proposal forms with ease
- Submit your proposals online
- Check results of proposal review anytime, anywhere
- Easy search for undersea feature names



Multi-beam sonar © NIWA



### TERM & DEFINITION

Definition of general terms and representative images



### PROPOSAL SUBMISSION

Create Proposal Forms with ease, Submit Your Proposals Online



### SEARCH & VIEW

Easy search and check your submitted proposals



### GAZETTEER

Search for registered Undersea feature name

## GEBCO

### Undersea Feature Names Gazetteer

#### Undersea Feature Search

Specific Term	<input type="text"/>
Generic Term (2)	<input type="text"/>
Proposer	<input type="text"/>
Discoverer	<input type="text"/>
Assoc. Meeting	<input type="text"/>

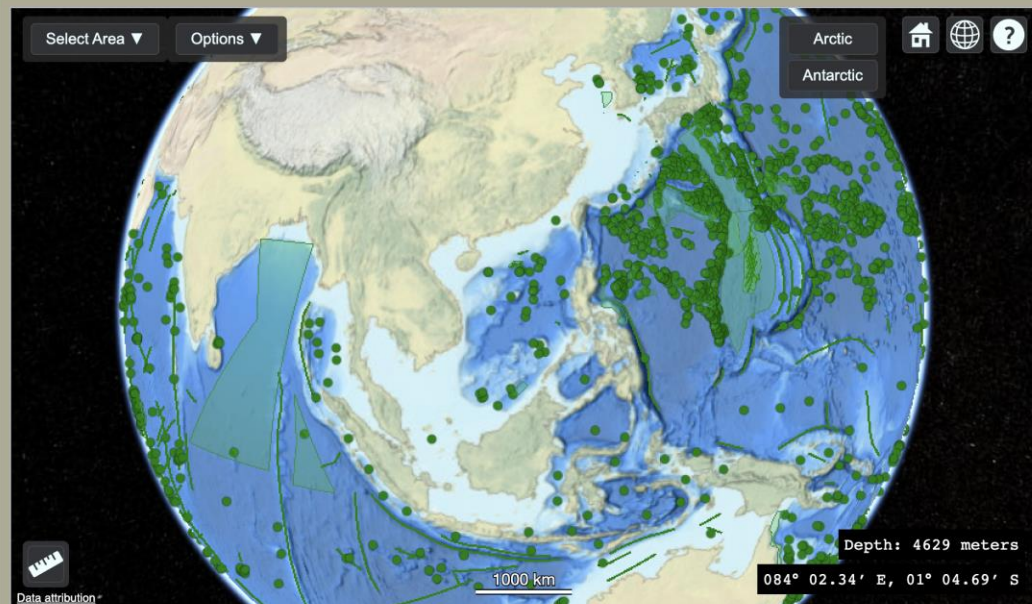
[Reset Filters](#)

Search results: 4631 features found.

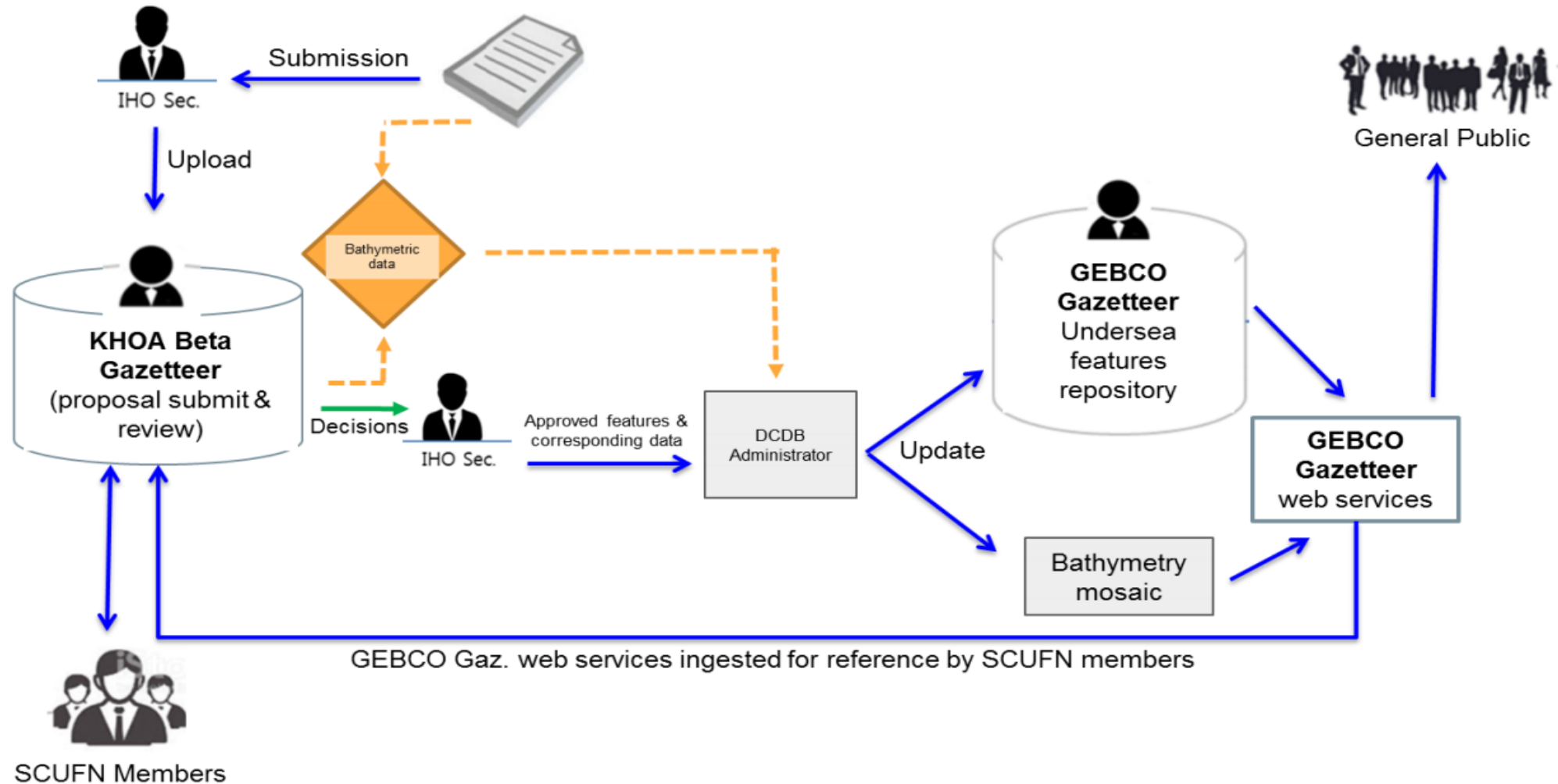
Abbott Seamount  
Abraham Canyon  
Abrolhos Ridge  
Abrolhos Shelf  
Abubacer Ridge  
Aby Canyon  
Acapulco Seamounts  
Acele Seamount  
Aconcagua Canyon  
Açor Bank  
Açores Este Fracture Zone  
Açu Canyon  
Adak Canyon  
Adams Seamount  
Adana Trough

[Export results as:](#)

Gazetteer Version: 4.3.6

[Log In](#)[API Help](#)

# Architecture agreed at SCUFN-32



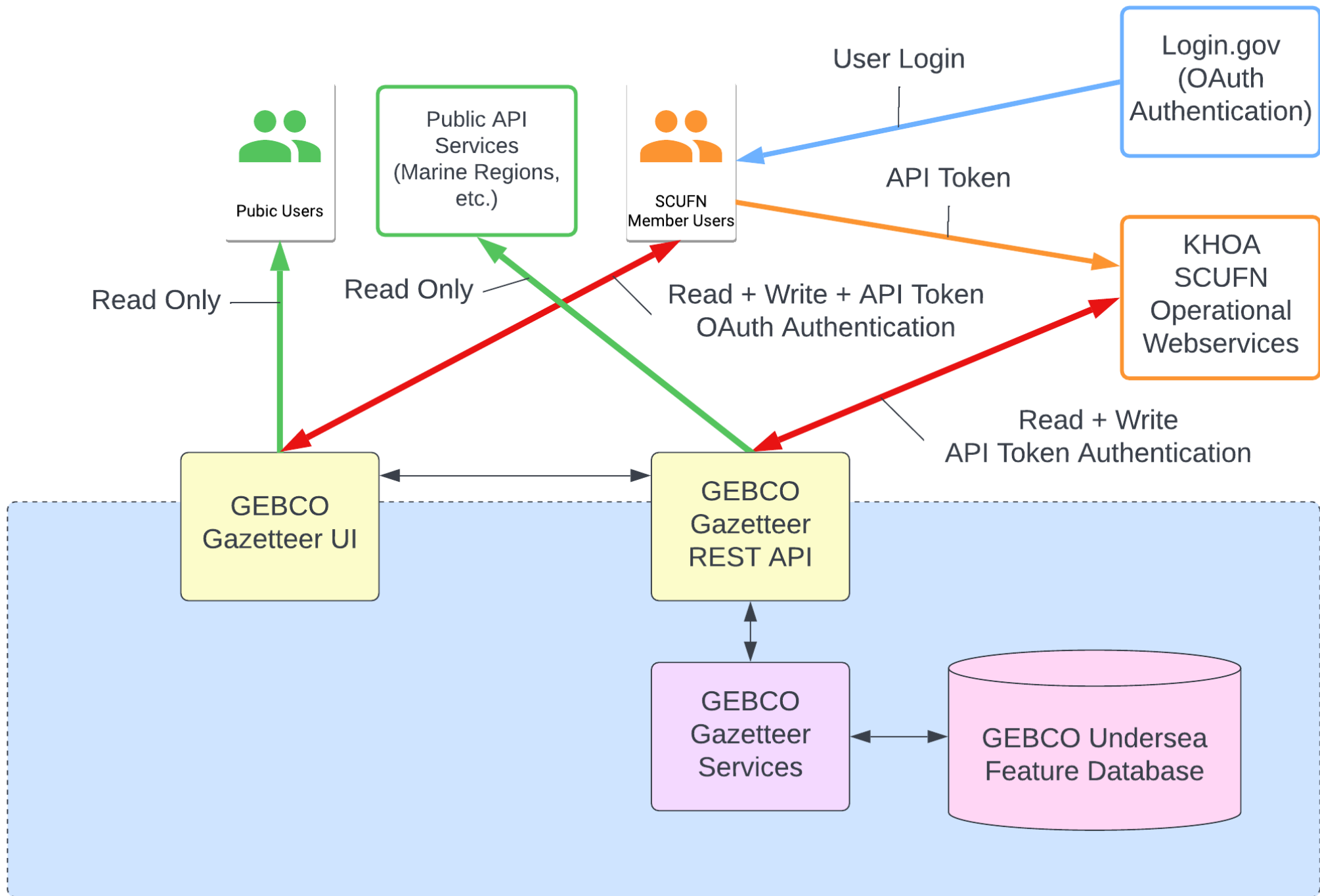
# Technical Terms

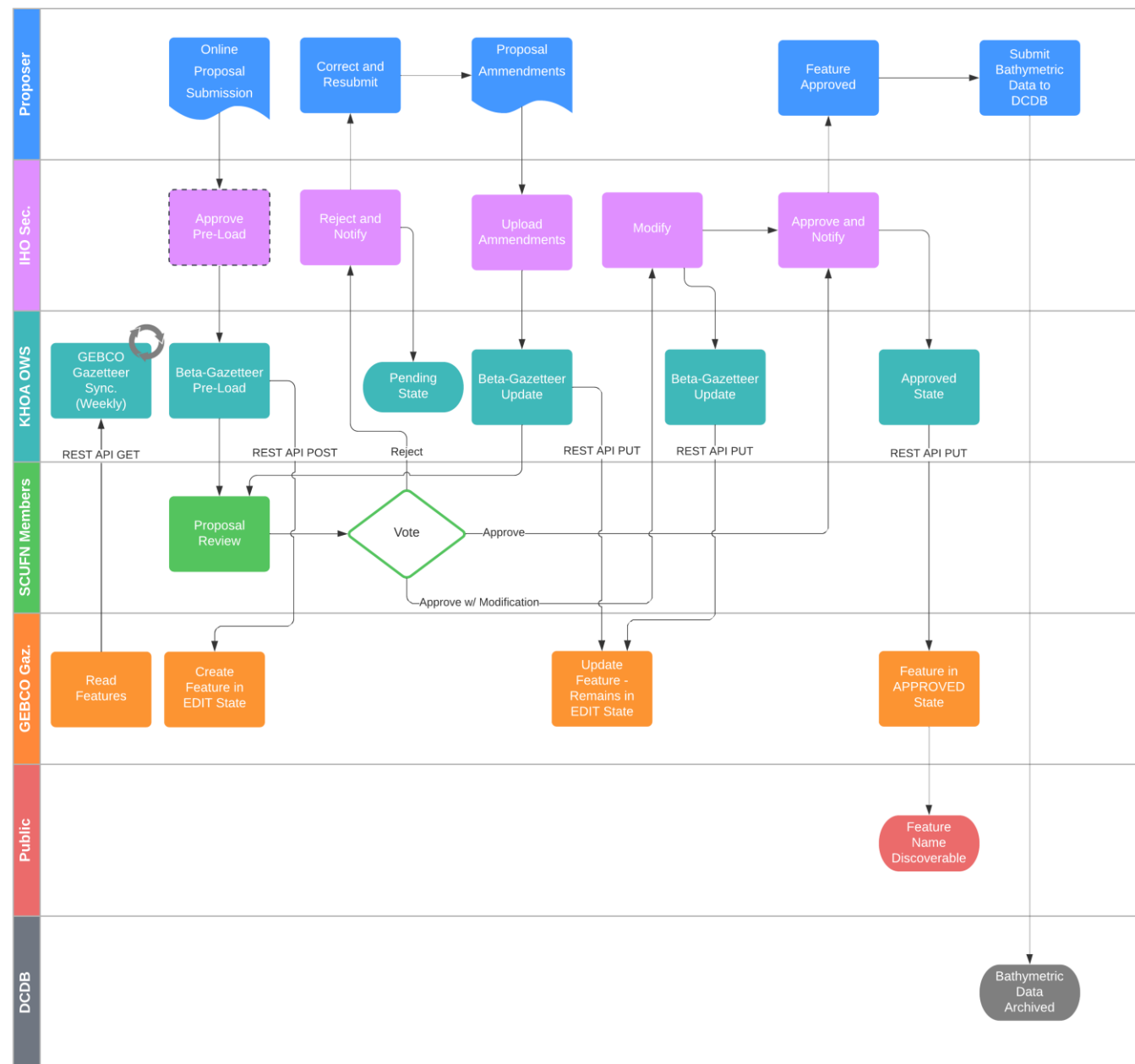
- REST - REpresentational State Transfer
  - A set of architectural constraints used to transfer data on the web
- API – Application Programming Interface
  - A well-defined contract for inter-application operation
- OAuth
  - A standard for authentication on the web
- API Token
  - A secret passed from client to service for authentication
- HTTP - HyperText Transfer Protocol
  - The communications protocol used to connect to web servers on the Internet or on a local network
- HTTP Header
  - A small amount of data sent in addition to the main payload when making a request over HTTP

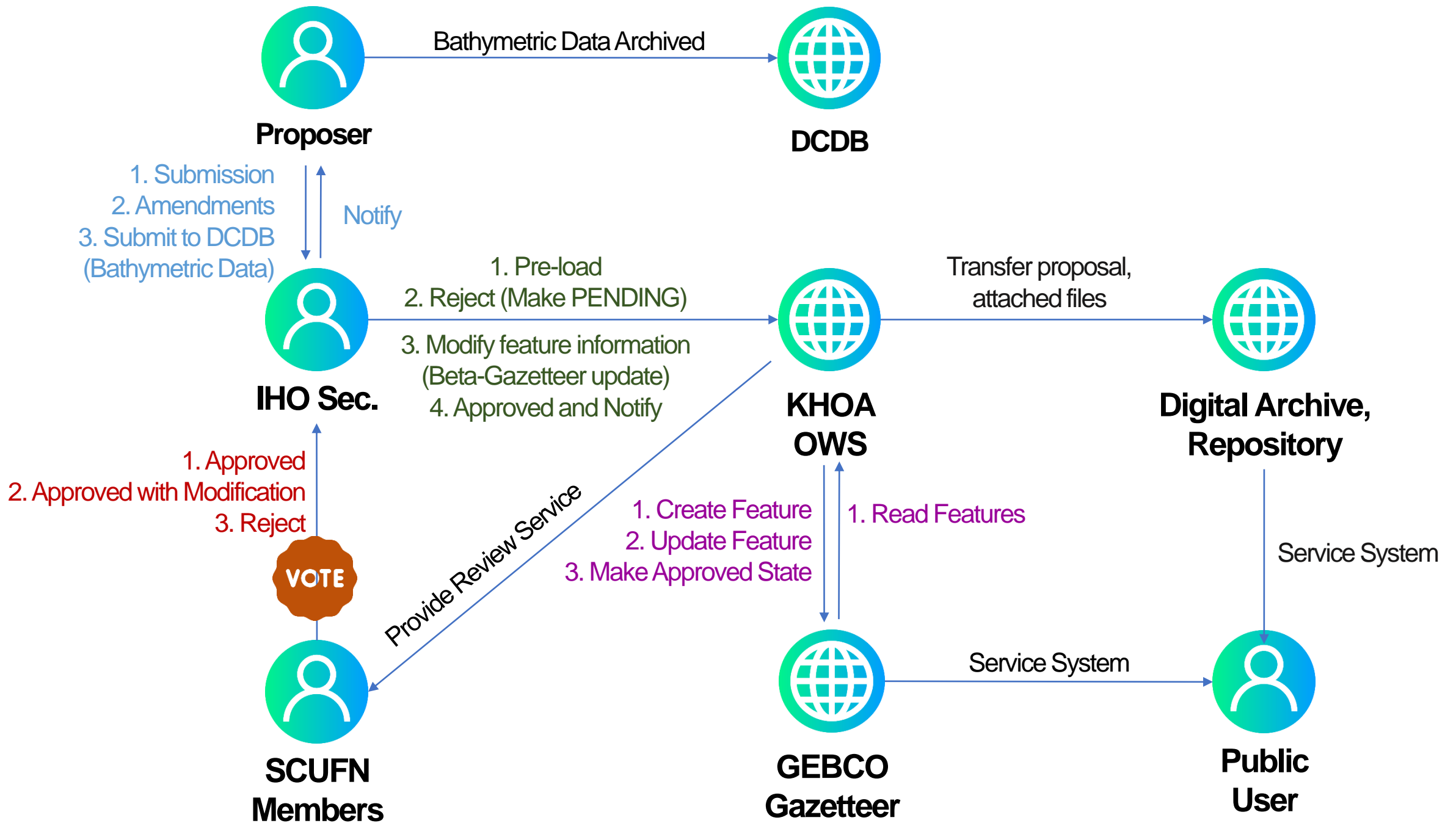
# GEBCO Gazetteer Authentication

- GEBCO Gazetteer will use OAuth 2.0 for (human) user authentication using Login.gov
- An admin user with sufficient privileges can generate an API token for use with the KHOA Beta Gazetteer
- Generated API tokens are tied to fine grained access control rules, granting create and update permission to undersea features
- KHOA Beta Gazetteer will present this API token as a “Bearer” token in the “Authorization” HTTP header in API requests to the GEBCO Gazetteer API











# GEBCO Gazetteer Test Environment

- A test environment will be available at <https://ccog.colorado.edu/gazetteer5>
- API documentation is available at <https://ccog.colorado.edu/gazetteer5/view/admin/api-docs>

# Timeline

- 2022/04
  - GEBCO Dev - GEBCO Gazetteer v5 development
  - KHOA Dev - Preparation of Beta-Gazetteer Sending/Receiving API's JSON Data
- 2022/05
  - GEBCO Dev - GEBCO Gazetteer v5 development
  - KHOA Dev - Testing for data transport with GEBCO API v5.0
- 2022/10
  - KHOA Dev - Keep Development Function and Sending/Receiving Data Test
- 2022/04 – 2023/04
  - GEBCO Dev - Ongoing support from GEBCO Gazetteer development team for Beta Gazetteer development
    - Questions
    - Testing support
    - API enhancements

# Recommendations

- SCUFN members provide support and feedback as needed during development of the GEBCO Gazetteer and KHOA Beta-Gazetteer interoperation

# Justification & Impacts

- Annual funding of both KHOA SCUFN Operational Webservices and the GEBCO Gazetteer is essential and will continue to be used to:
  - Perform regular maintenance and upgrades of both KHOA SCUFN OWS and the GEBCO Gazetteer
  - Support incremental development to facilitate interoperability between KHOA SCUFN OWS and the GEBCO Gazetteer

# Actions required of SCUFN

- SCUFN is invited to:
  - note this paper;
  - consider the Recommendations and Impacts listed.