



A cloud-native workflow for publishing, discovering, processing, and visualizing geospatial data

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- Open Science; Data system in the cloud
- **Storage:** Analysis ready cloud optimized (ARCO) geospatial data
- **Services:** Discovery of the data (STAC API), Tiling of the data (TiTiler)
- **Visualization:** Data in a storybook Dashboard + simple analysis
- **Analysis:** JupyterHub with data access for complex analysis

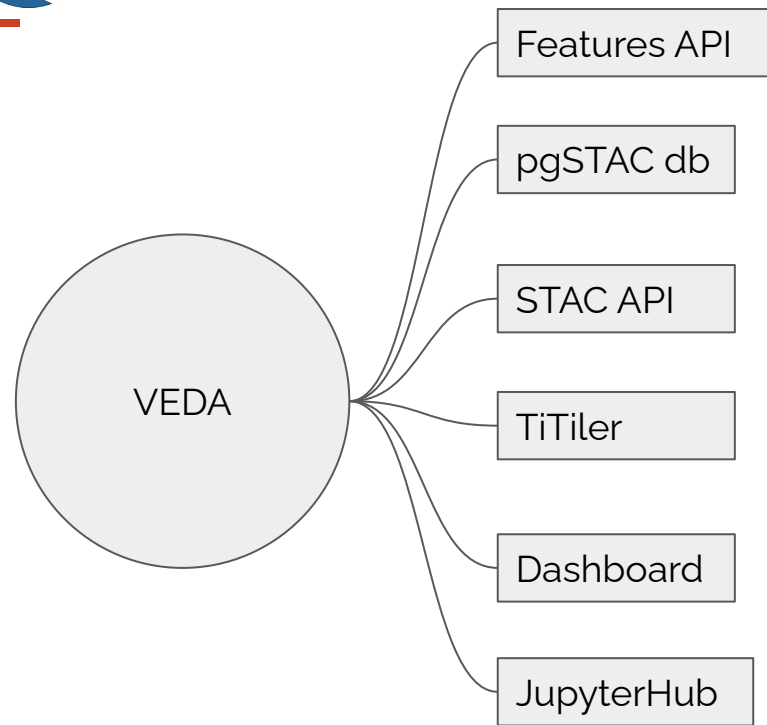


Fig: VEDA components

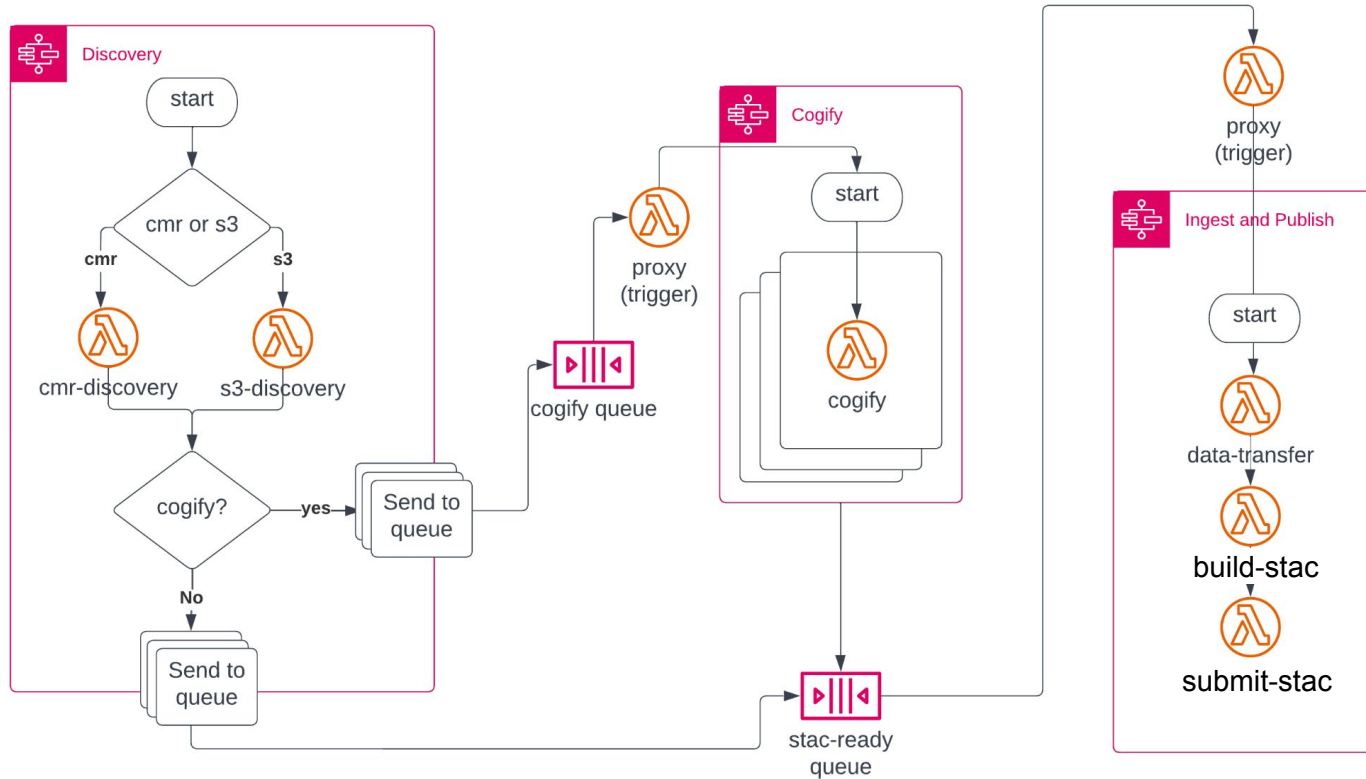
Data lifecycle

Data is the blood to VEDA's heart

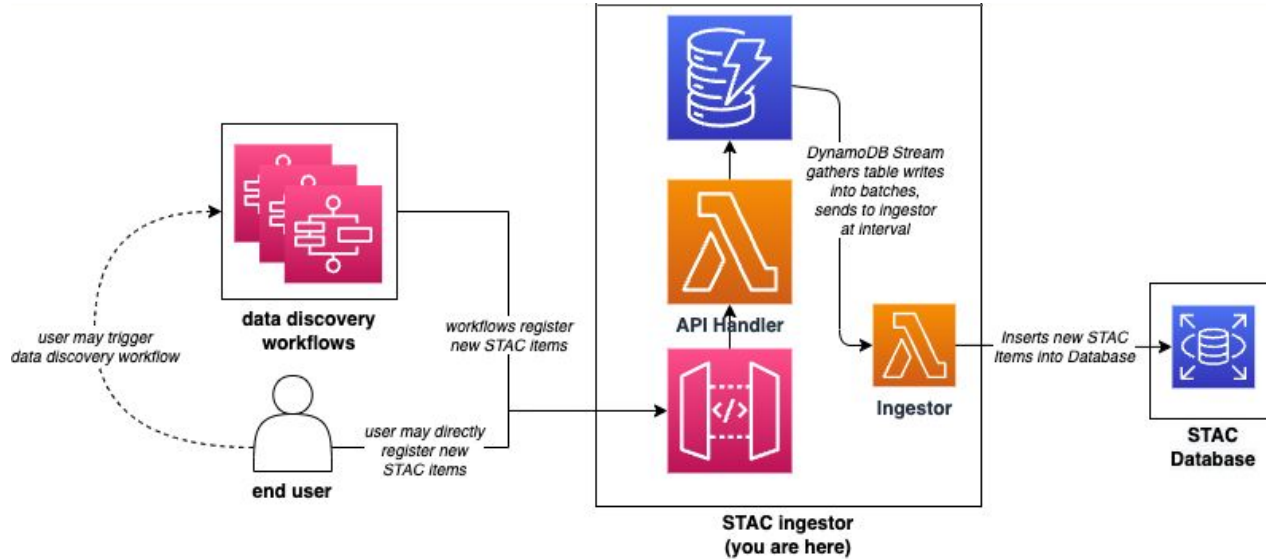
Several processing needed to store and distribute the data:

- **Data transformation:** traditional data formats to ARCO
- **Data ingestion:** to the ARCO store
- **Data cataloging:** STAC catalog/ pgSTAC db
- **Data dissemination:** STAC API

Architecture - 1



Architecture - 2



Data processing and visualization

- Data from the STAC API is consumable by various services:
 - VEDA Dashboard - using VEDA TiTiler
 - EO Dashboard - using VEDA TiTiler
 - VEDA JupyterHub - direct access to the ARCO store

Resources and Links

VEDA is a open science project

- Data services/backend:
 - <https://github.com/NASA-IMPACT/veda-data-pipelines>
 - <https://github.com/NASA-IMPACT/veda-stac-ingestor>
 - <https://github.com/NASA-IMPACT/delta-backend>
- Dashboard:
 - <https://www.earthdata.nasa.gov/dashboard/>
 - Repos: <https://github.com/NASA-IMPACT/veda-ui> , <https://github.com/NASA-IMPACT/veda-config>
- Documentation:
 - <https://nasa-impact.github.io/veda-documentation>