

PO.DAAC migrating into Amazon Web Service (AWS) Cloud



- Phase 1 (Cloud Accessible Date: April 15, 2021; Cloud Only Access Date: January 31, 2022)
- Phase 2 (Cloud Accessible Date: October 1, 2021; Cloud Only Access Date: May 2, 2022)
- Phase 3 (Cloud Accessible Date: December 23, 2021; Cloud Only Access Date: August 29, 2022)
- Phase 4 (Cloud Accessible Date: April, 2022; Cloud Only Access Date: August 29, 2022)
- Phase 5 (Cloud Accessible Date: July, 2022; Cloud Only Access Date: September, 2022)

After September, 2022, all PO.DAAC datasets will be only accessible from Cloud

New Cloud Paradigm

- Big Data Challenge & Solutions – EOSDIS & DAAC Goals
 - Maintain DAAC level of service to user, by leveraging scalability of cloud environment
 - Minimize amount of data user needs to handle
 - Make data more analysis ready on behalf of user

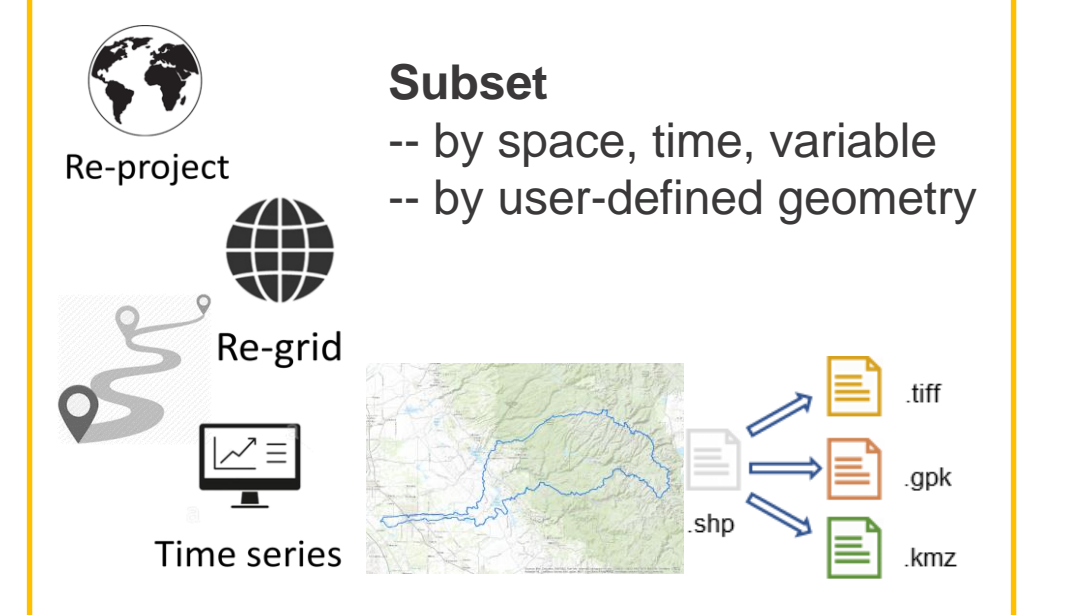
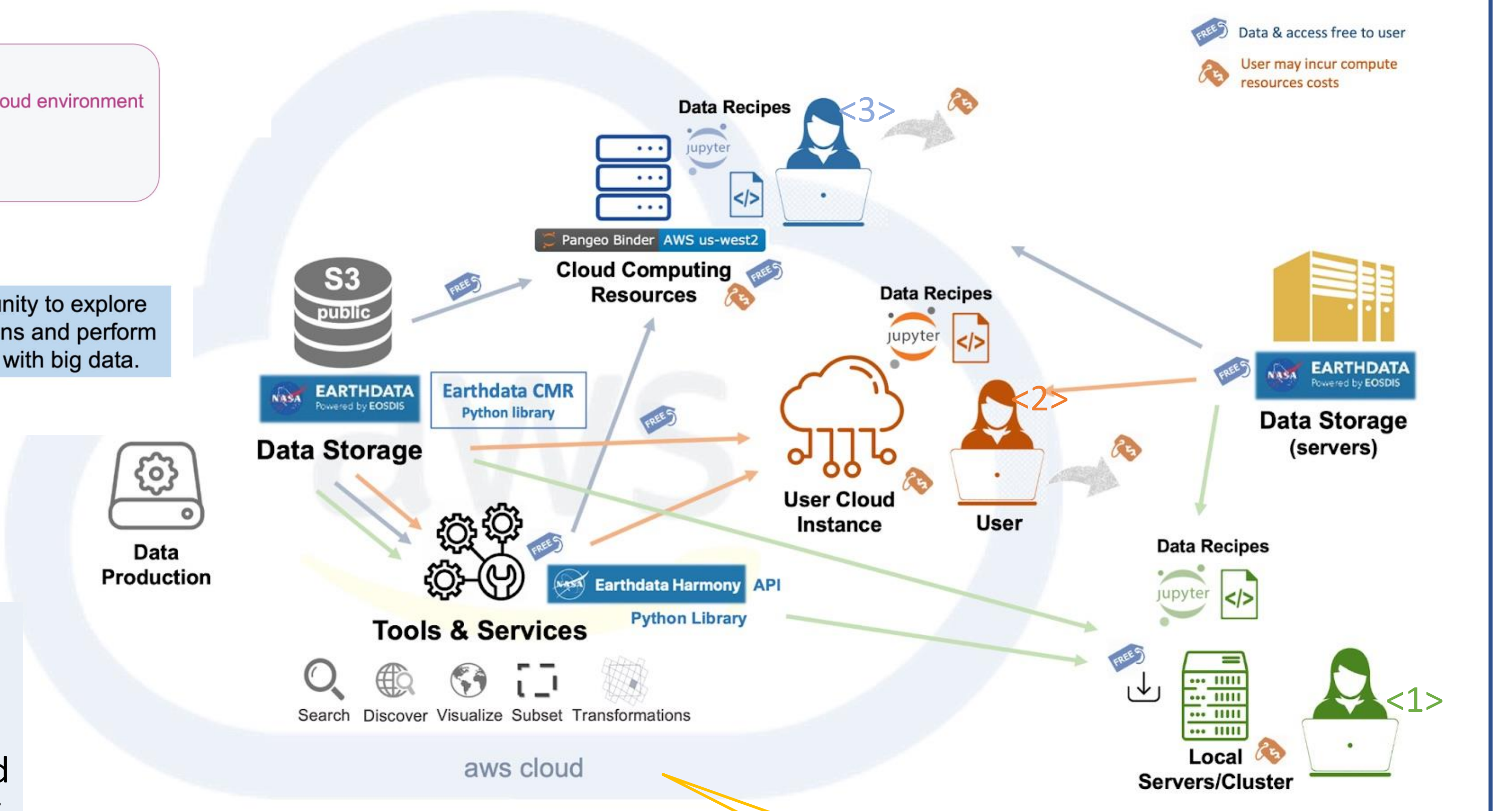
- Co-location
 - Data
 - Tools & Services
 - Analysis

Vision Being Implemented:

- Data storage and tools and services are co-located in cloud
- Migrate all datasets from 12 NASA data centers into the Earthdata cloud
- Provide the same and higher level of service to users
- Easy to access to datasets from different sources (12 NASA DAACs)

Three cloud data access pathways:

- Working locally: downloading data to your local machine
- Within the Cloud: Set up your own AWS EC2 cloud instance
- Within the Cloud: Through shareable cloud environments



PO.DAAC Cloud data Search, Discovery, Access, and Services

PO.DAAC Web Portal – DOI home page



Earthdata Link

DOI Link

PO.DAAC Data Access Page



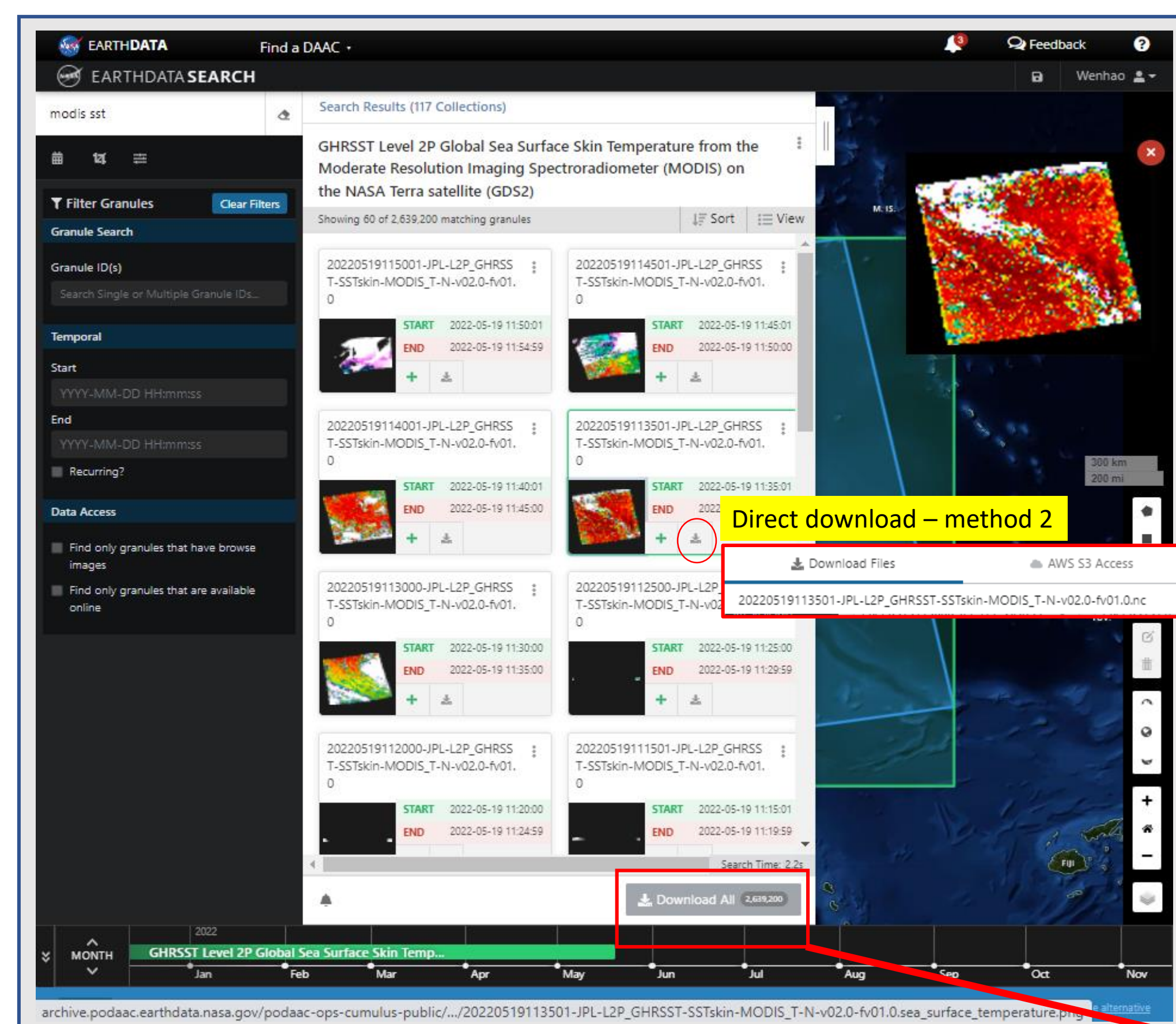
AWS S3 bucket access endpoint

Protected buckets contain the data files for a given collection. Protected simply means users must log in to Earthdata Login before gaining access to contents within that S3 bucket. Please use the S3 Credential endpoint to gain an Earthdata login token for use in S3 Access.

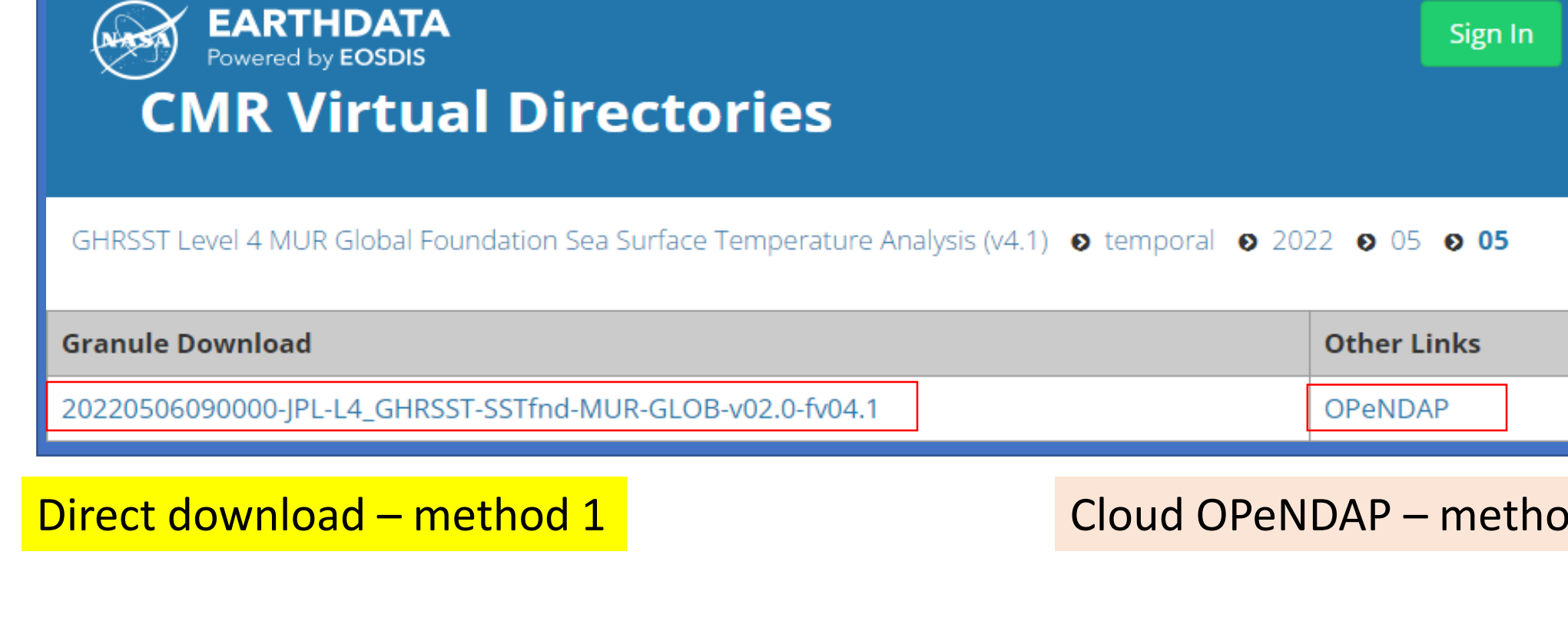
Public buckets, in contrast, house metadata such as checksums, imagery, and metadata files and the like. A user can access public buckets and these types of files without logging in to Earthdata Login.

Most of the time, you'll want to access the protected bucket.

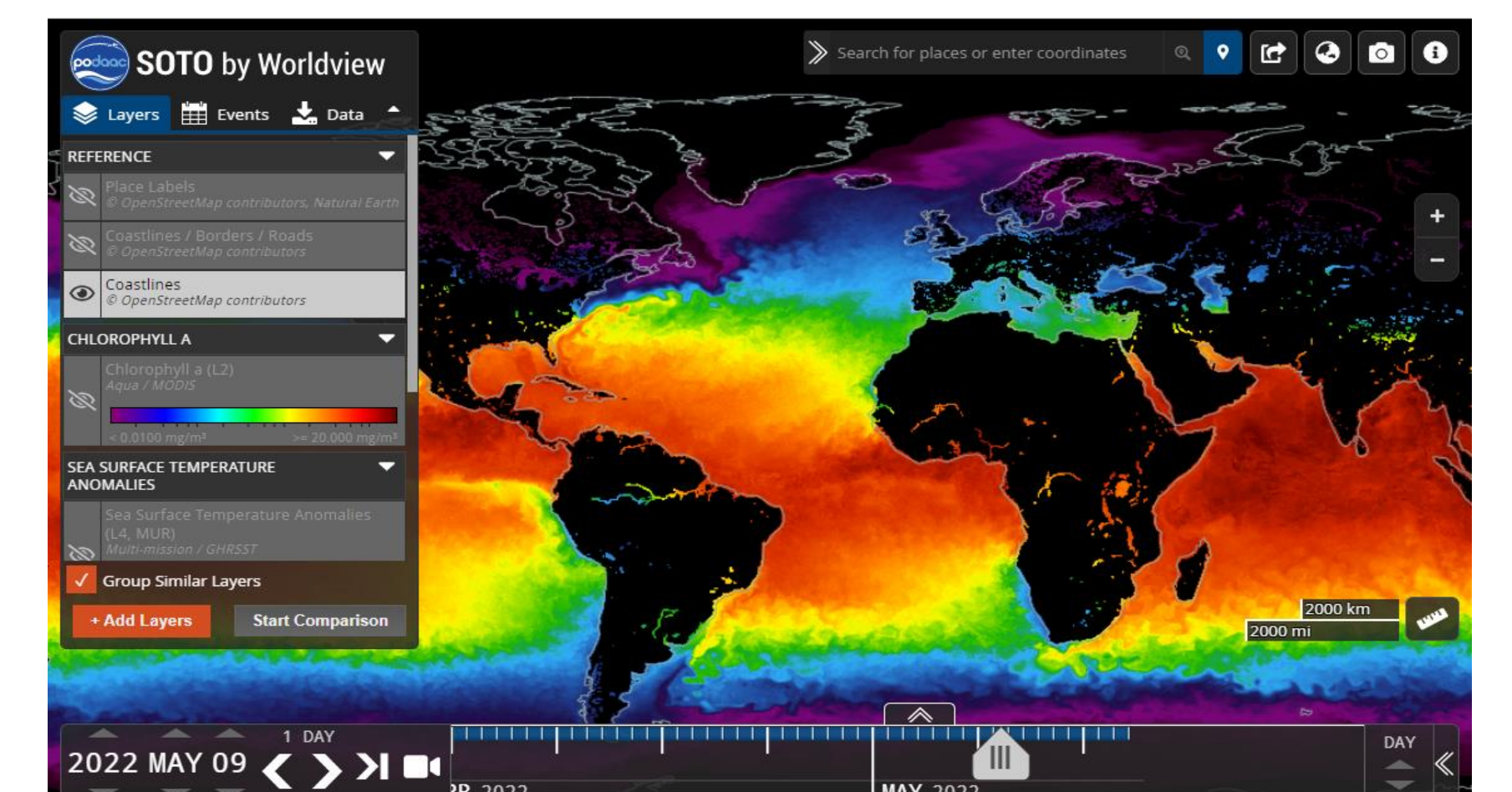
NASA Earthdata Search Portal



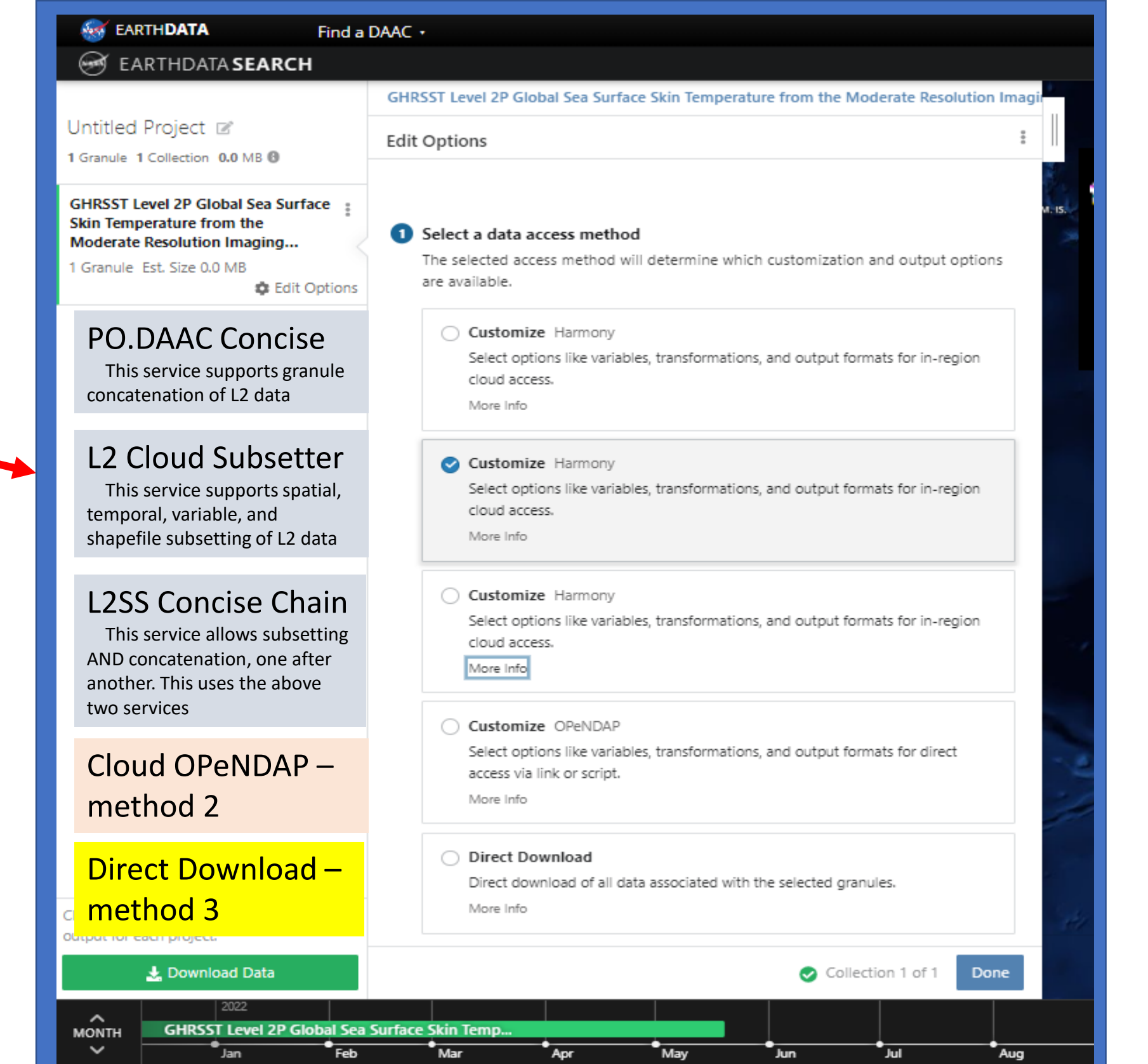
CMR Virtual Directories



SOTO powered by World view

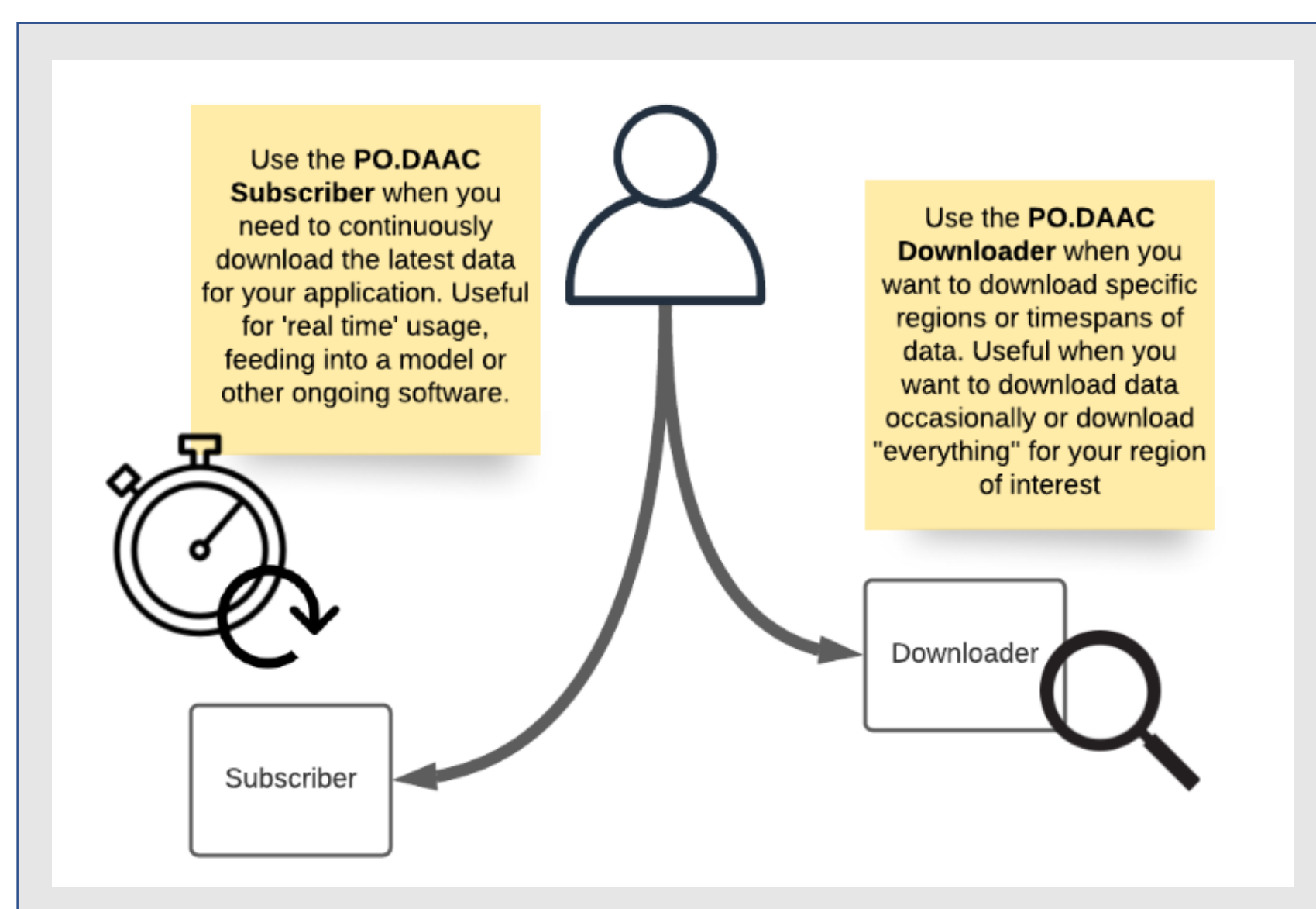


Customize multi-granules download



PO.DAAC Cloud data scripts and recipes

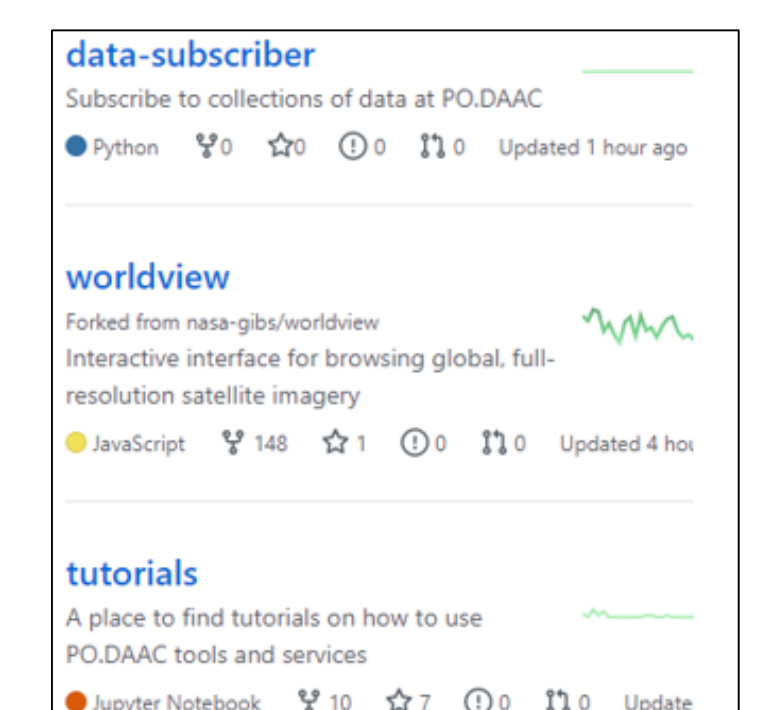
- Cloud Data subscriber & downloader (<https://github.com/podaac/data-subscriber>)



Installation (<https://pypi.org/project/podaac-data-subscriber/1.7.1/>)
 Both subscriber and downloader require Python >= 3.8. The subscriber and downloader scripts are available in the pypi python repository, it can be installed via pip:
`$> pip install podaac-data-subscriber`
 you should now have access to the downloader and subscriber
 Command line interfaces:
`$> podaac-data-subscriber -h`
 e.g. `$> podaac-data-subscriber -c MUR25-JPL-L4-GLOB-v04.2 -d Downloads/tmp -sd 2022-05-20T00:00:00Z`
`$> podaac-data-downloader -h`
 e.g. `$> podaac-data-downloader -c MUR25-JPL-L4-GLOB-v04.2 -d Downloads/tmp -sd 2022-03-25T00:00:00Z -ed 2022-04-25T00:00:00Z`

- PO.DAAC support on GitHub

- 96 public repositories
- Tutorials and recipes
- TVA development repositories

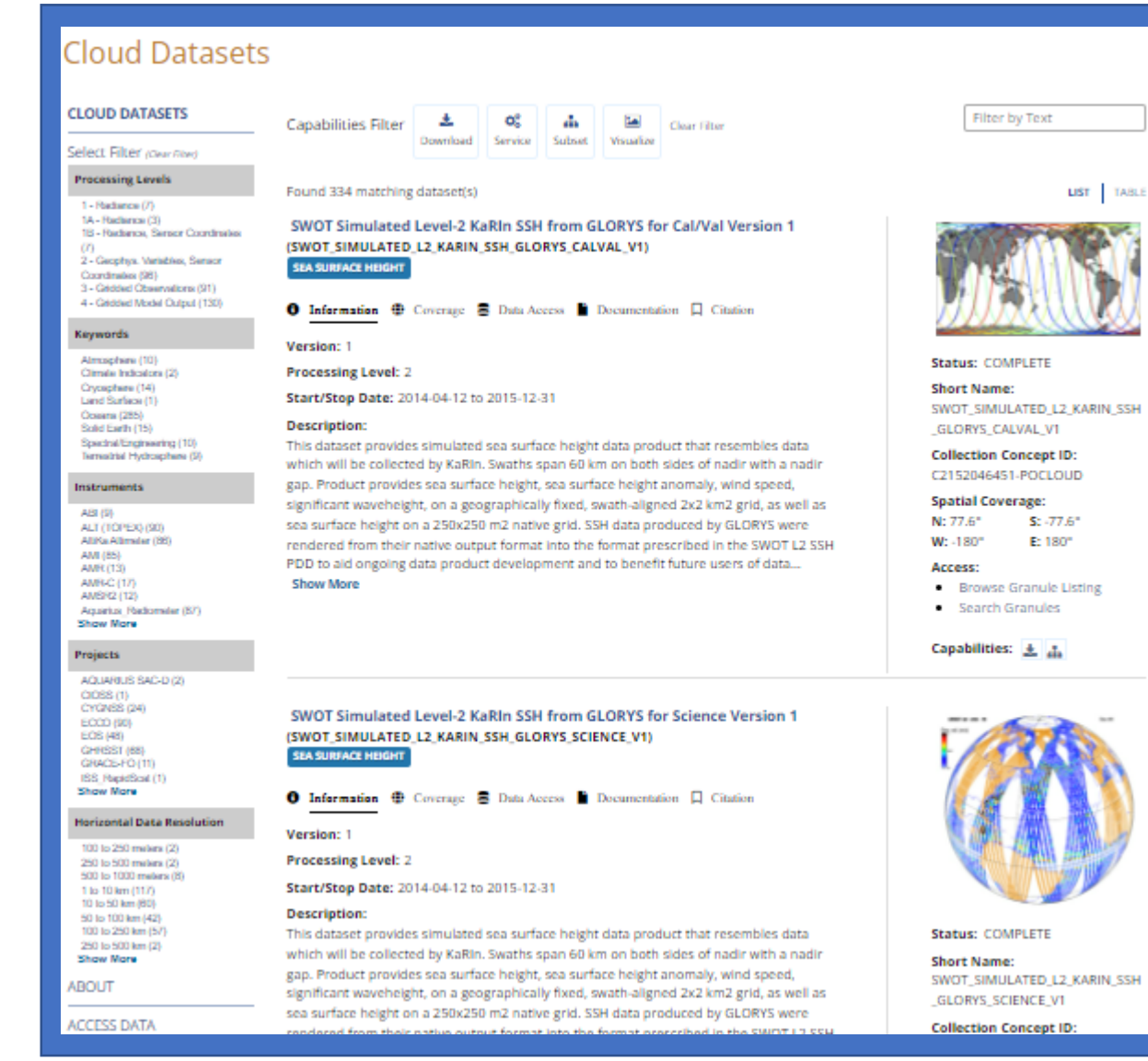


PO.DAAC Cloud Information center – Cloud Data Page

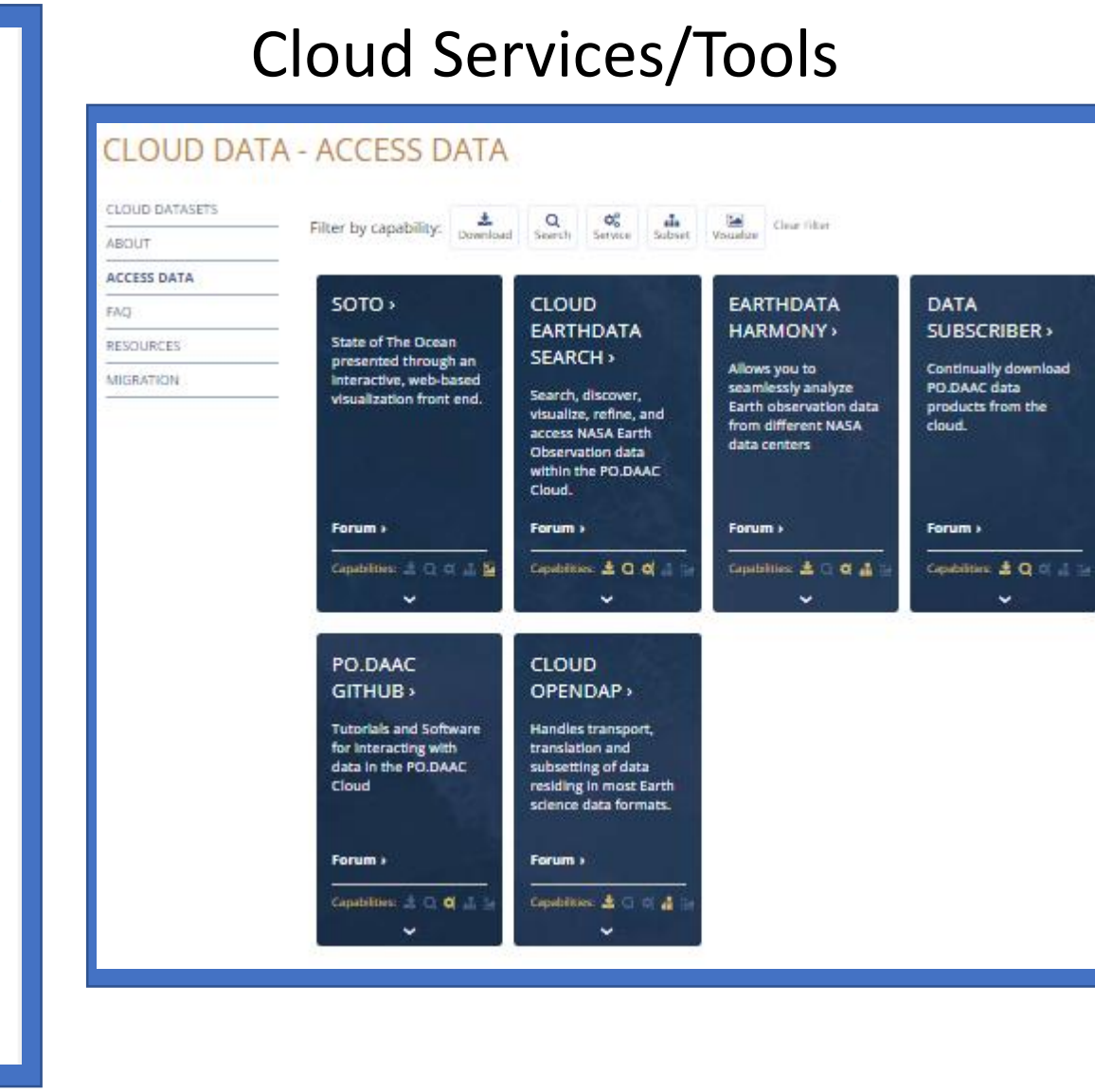
Cloud Data Page provides:

- About
- Cloud Data
- Access Data
- FAQ
- Resource
- Migration

Cloud Dataset List Page



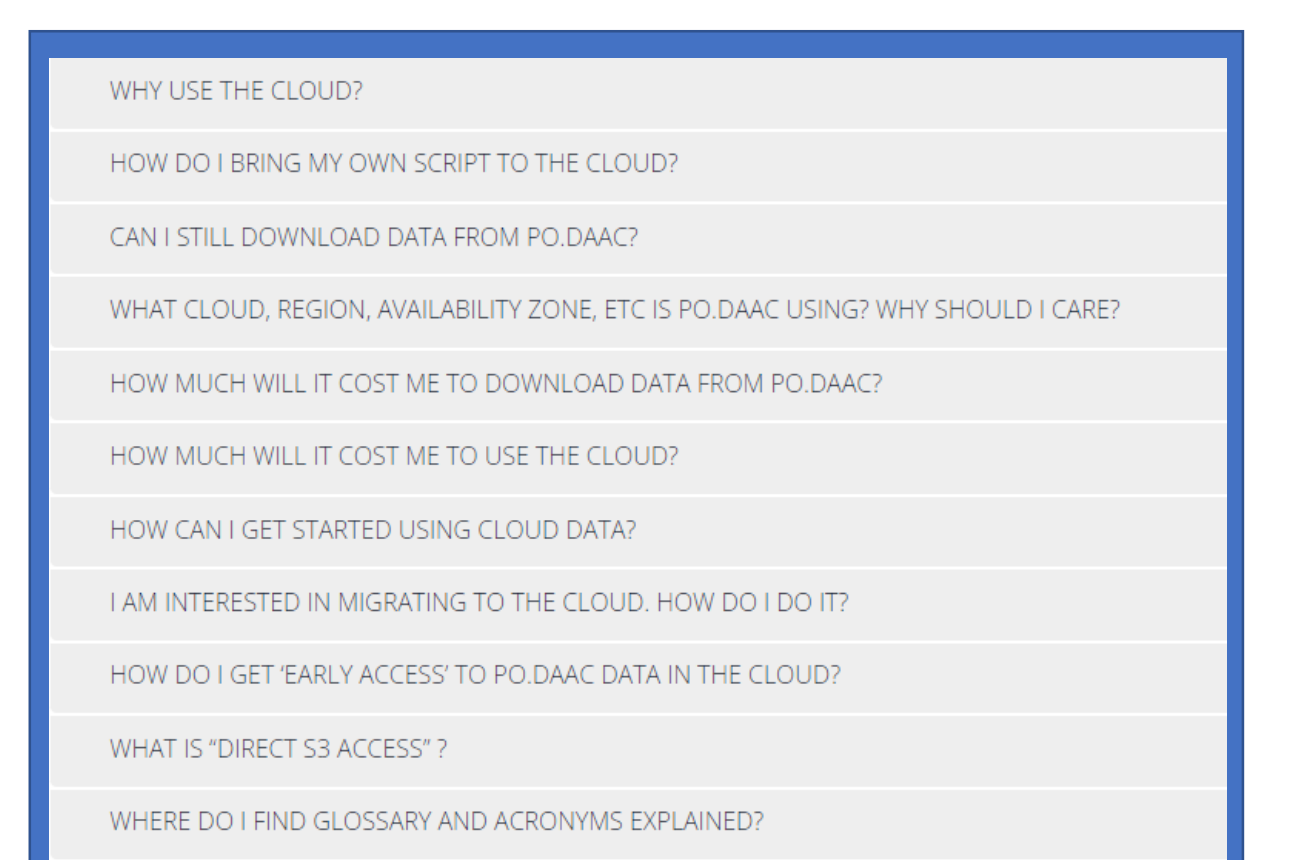
Cloud Services/Tools



CLOUD DATA - MIGRATION



Cloud Data FAQ



Migration Helps

