



LABORATÓRIO DE INSTRUMENTAÇÃO
E FÍSICA EXPERIMENTAL DE PARTÍCULAS
partículas e tecnologia

CSCALE OpenEO Deployment

What is OPENEO

- The Openeo project, is a free and open source tool that provides an API to analyze and process satellite imagery;
- It uses Copernicus data to scan for land and water mass changes;

Requirements

OPENEO

- Kubernetes cluster;
- Satellite imagery data;
- Storage;
- Stac Catalog;
- Jupyter notebook.

Deploying C-Scale

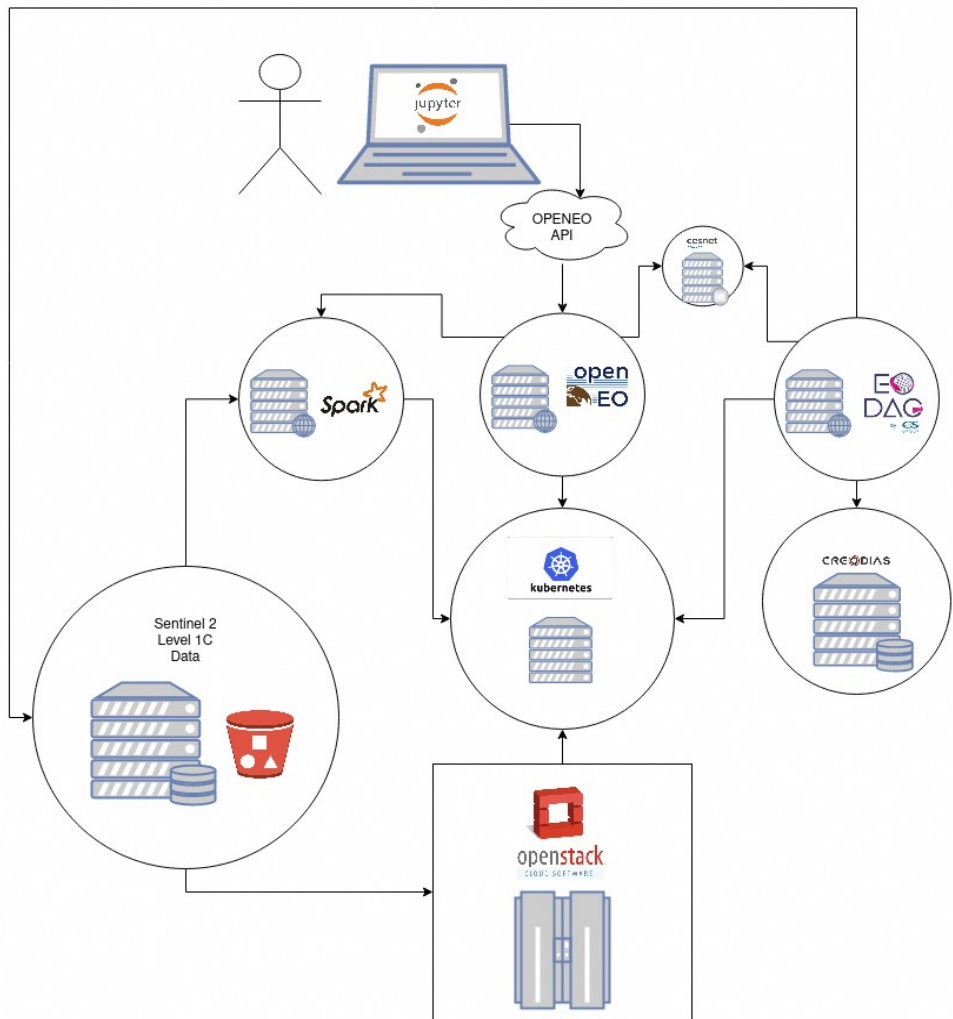
- Deployment of a kubernetes cluster;
- Creation of a S3 bucket for storage;
- Deployment of EODAG;
- Deployment of OPENEO;
- Download of Sentinel data;
- Registration of metadata at CESNET.

Issues Deploying C-Scale

- Existing OPNEO documentation was lacking;
- Access to products;
- Non existing STAC Catalog;
- EODAG lacking in functionality;
- Registering data on CESNET;
- Updating OPNEO to latest version.

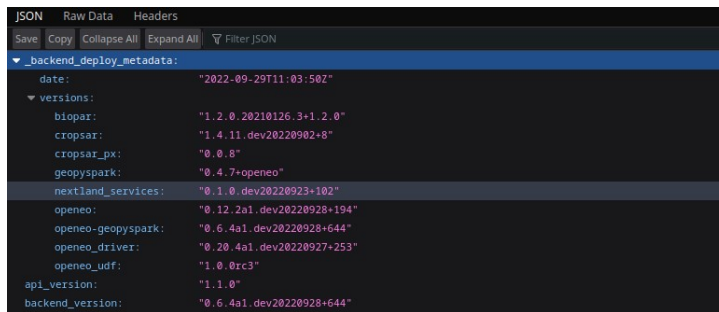
C-Scale Service Architecture

- Openstack
- Kubernetes
- Openeo
- EODAG
- CREODIAS
- Cesnet
- S3
- Spark



Our endpoint

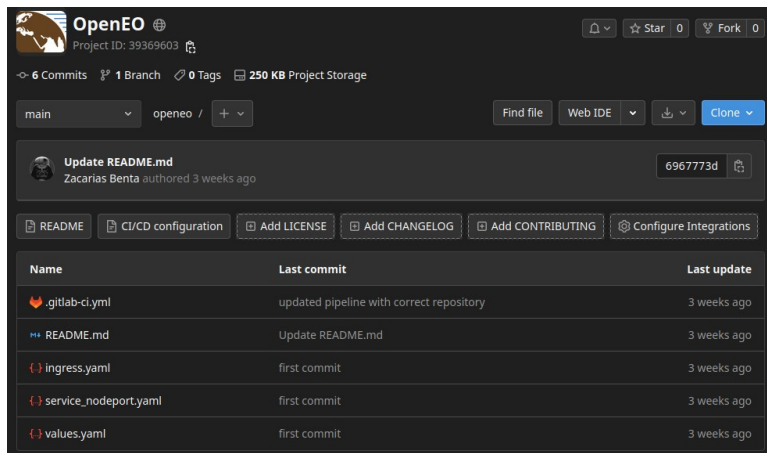
<https://openeo.a.incd.pt/openeo/1.1.0/>








```
JSON Raw Data Headers
Save Copy Collapse All Expand All Filter JSON
▼ _backend_deploy_metadata:
  date: "2022-09-29T11:03:50Z"
  ▼ versions:
    biopar: "1.2.0.20210126.3+1.2.0"
    cropsar: "1.4.11.dev20220902+8"
    cropsar_px: "0.0.8"
    geopyspark: "0.4.7+openeo"
    nextland_services: "0.1.0.dev20220923+102"
    openeo: "0.12.2a1.dev20220928+194"
    openeo-geopyspark: "0.6.4a1.dev20220928+644"
    openeo_driver: "0.20.4a1.dev20220927+253"
    openeo_udf: "1.0.0rc3"
  api_version: "1.1.0"
  backend_version: "0.6.4a1.dev20220928+644"
```

Our installation template repo

<https://gitlab.com/lip-computing/openeo>



The screenshot shows the GitLab repository page for 'OpenEO'. The repository is located at 'lip-computing/openeo' and has 6 commits, 1 branch, 0 tags, and 250 KB of project storage. The current branch is 'main'. The repository was last updated 3 weeks ago by Zacarias Benta. The repository contains several files, including a README.md, CI/CD configuration, and various YAML files.

Name	Last commit	Last update
 .gitlab-ci.yml	updated pipeline with correct repository	3 weeks ago
 README.md	Update README.md	3 weeks ago
 ingress.yaml	first commit	3 weeks ago
 service_nodeport.yaml	first commit	3 weeks ago
 values.yaml	first commit	3 weeks ago



Thanks

Any questions?

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