



**CS³
MESH⁴
EOSC**

Connecting European Data



ScienceMesh: Technology & Development

Hugo Labrador, CERN

26th January 2022



CS3MESH4EOSC has received funding from the European Union's Horizon 2020 Research and Innovation programme under **Grant Agreement No. 863353**.



API/Protocol Design

CS³ APIS OPENCLOUDMESH

WOPI DAV GRPC

protobuf Protocol Buffers



CI/CD

kubernetes

HELM

GitHub Actions

DRONE by harness



Software Development

Reva

php

jupyterhub

JS

WOPI Server

owncloud

nextcloud

Seafile

python



Documentation Website

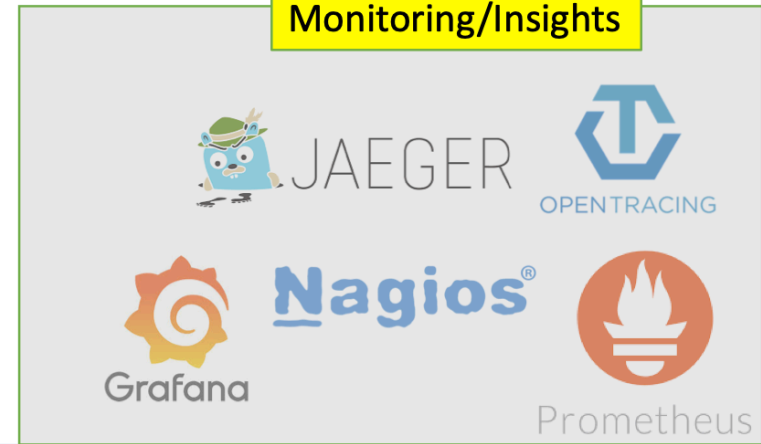


DOCSY

Science Mesh



Monitoring/Insights



JAEGER

OPENTRACING


Grafana

Nagios

Prometheus




sciencemesh


<https://sciencemesh.io>  @cs3org

 Overview

 Repositories **16**

 Packages

 People **29**



 Teams **1**

 Projects **5**

 Settings



CS3 Organization

 <https://gitter.im/cs3org/>  <http://www.cs3community.org>  contact@cs3community.org

 Overview

 Repositories **20**

 Packages

 People **28**

 Teams **7**

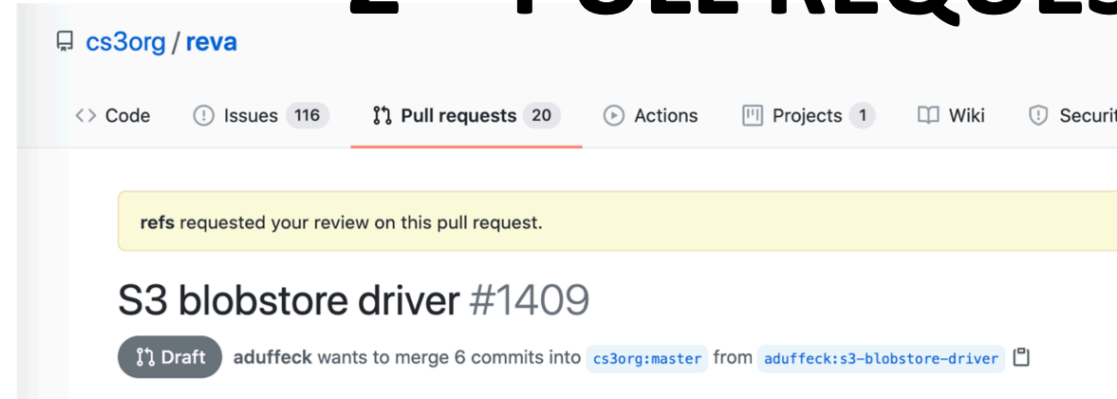
 Projects

 Settings

1 – FORK



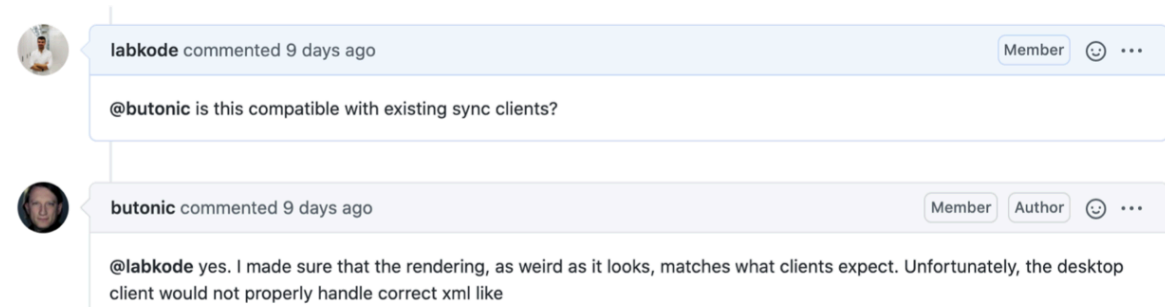
2 – PULL REQUEST

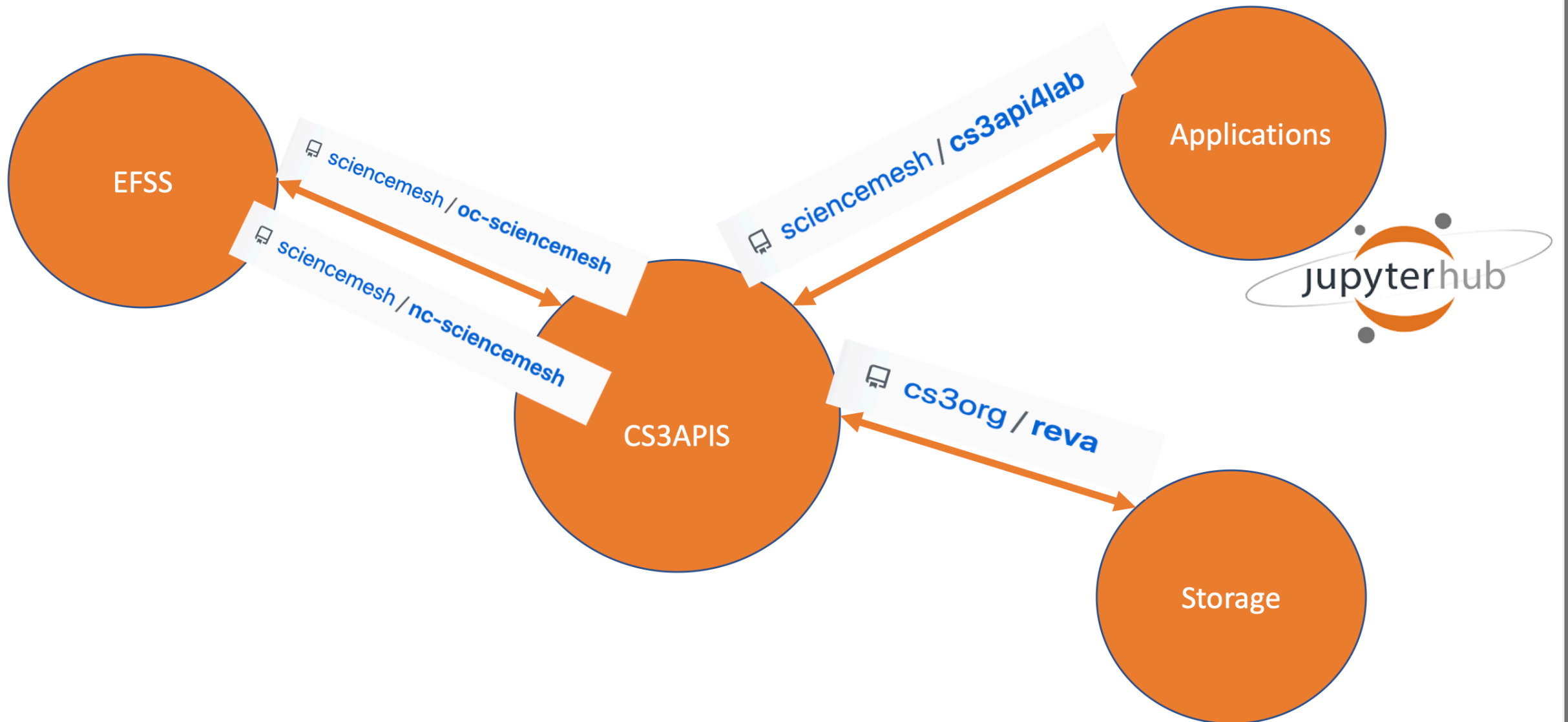


4 – MERGE



3 – DISCUSS & REVIEW



















 [cs3org / cs3apis](#)

Protocol Documentation

Table of Contents

cs3/gateway/v1beta1/gateway_api.proto

 AuthenticateRequest	99
 AuthenticateResponse	100
 GetQuotaRequest	101
 InitiateFileDownloadResponse	102
 InitiateFileUploadResponse	103
 ListAuthProvidersResponse	104
 ListRecycleRequest	105
 ListRecycleStreamRequest	106
 OpenFileInAppProviderRequest	107
 PurgeRecycleRequest	108
 WhoAmIRequest	109
 WhoAmIResponse	110
 OpenFileInAppProviderRequest.ViewMode	111
 GatewayAPI	

cs3/gateway/v1beta1/resources.proto

AuthenticateRequest

Field	Type	Label	Description
opaque	cs3.types.v1beta1.Opaque		OPTIONAL. Opaque information.
type	string		REQUIRED. The type of authentication to use.
client_id	string		OPTIONAL. The id of the client. For basic authentication with username and password both client_id and client_secret are expected to be filled. example, for OIDC only a token is necessary.
client_secret	string		OPTIONAL. The secret of the client.

```

    },
    Opaque: &typespb.Opaque{
      Map: map[string]*typespb.OpaqueEntry{
        "Upload-Length": {
          Decoder: "plain",
          Value:  []byte(strconv.FormatInt(md.Size(), 10)),
        },
      },
    },
  },
}

```



Repositories → cs3org/rev

rev

ACTIVITY FEED BRANCHES DEPLOYMENTS SETTINGS

✓ #5229. Bump commit id for tests 2022-01-25 (edge) (#2475)

phil-davis pushed [0542f337](#) to [edge](#)

00:53 · an hour ago

✓ #5228. Bump commit id for tests 2022-01-25 (#2474)

phil-davis pushed [0e8c017e](#) to [master](#)

26:19 · 3 hours ago

✗ #5227. [tests-only] Merge master into edge

C0rby opened pull request [#2473](#) to [edge](#)

08:03 · 13 hours ago

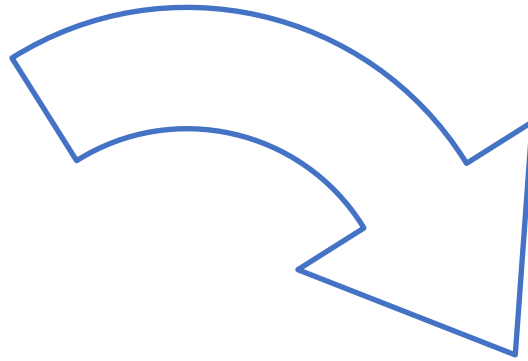
✗ #5226. [tests-only] Merge master into edge

C0rby opened pull request [#2473](#) to [edge](#)

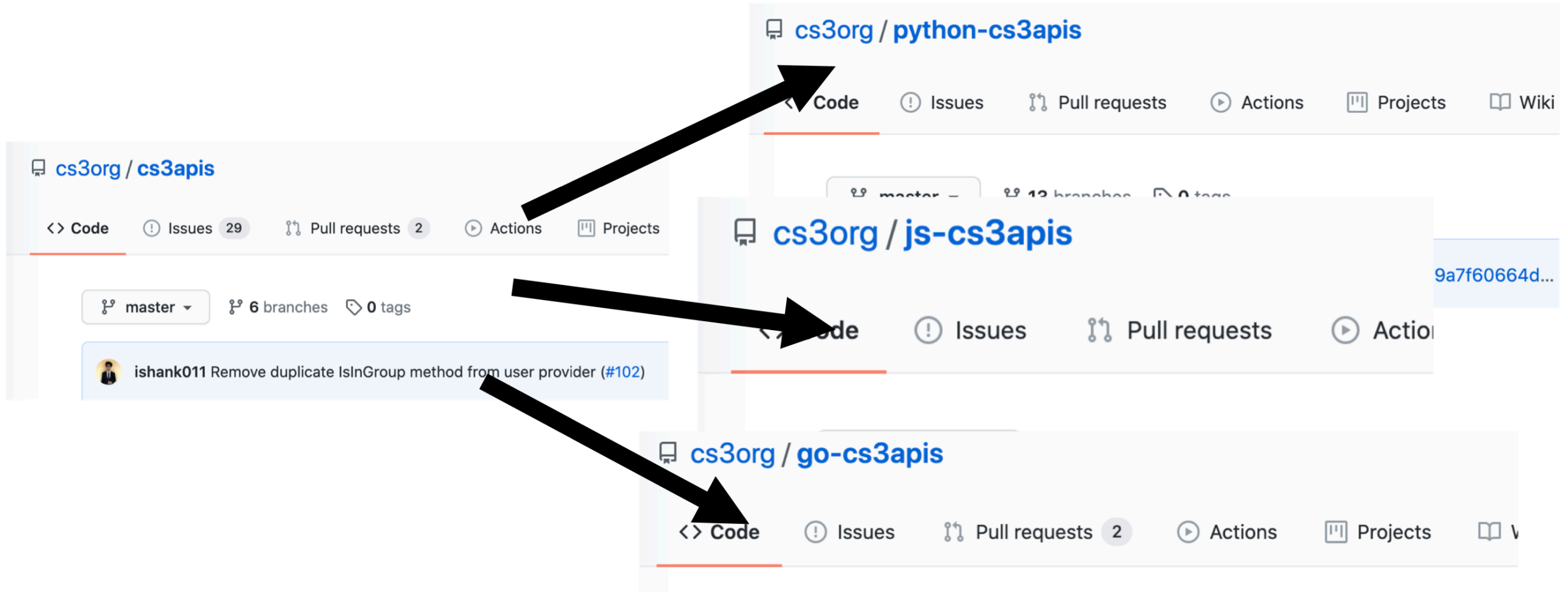
07:58 · 13 hours ago



✓ build-and-publish	00:17
✓ clone	00:04
✓ build-and-publish	00:13



✓ changelog	00:16
✓ clone	00:07
✓ changelog	00:08
✓ check-starlark	00:11
✓ unit-test-cover...	06:32
✓ build-only	03:53
✓ test-integration	02:42
✓ litmus-ocis-ol...	02:42
✓ litmus-ocis-ne...	01:33
✗ litmus-ownclo...	03:17
✓ virtual-views	07:03
✗ ocis-integratio...	10:09
✗ ocis-integratio...	13:11
✓ ocis-integratio...	16:19
✓ ocis-integratio...	12:49
✗ ocis-integratio...	01:00:00
✓ ocis-integratio...	05:04
✗ s3ng-integrati...	04:25
✗ s3ng-integrati...	03:54
✗ s3ng-integrati...	03:54



♥ Netherworld's Pretend Minibar

npm

1 packages found

Sort Packages


Optimal


Popularity

Quality

@cs3org/cs3apis
JavaScript bindings for the CS3 APIs to connect Storage and Application Providers

cs3-apis iop storage synchronization

 **alfageme** published 0.0.6 • 24 days ago



Search projects

cs3apis 0.1.dev47

```
pip install cs3apis
```

GO

Results for "cs3apis"

[Search help](#)

1 – 10 of 36 results

github.com/cs3org/go-cs3apis/cs3/identity/user/v1beta1



iop

ORG: ScienceMesh REPO: ScienceMesh Charts

VERSION: 0.2.1 APP VERSION: 0.0.1

ScienceMesh IOP is the reference Federated Scientific Mesh platform

★ 1 [Helm chart](#)

Updated 7 months ago

 Verified Publisher  Images Security Rating

Middleware component to run along your EFSS



centralbrain

ORG: ScienceMesh REPO: ScienceMesh Charts

VERSION: 0.0.3 APP VERSION: 0.0.1

Central Brain is the obserbavility component for the IOP

★ 0 [Helm chart](#)

Updated 9 months ago

 Verified Publisher

Supporting services for federation (monitoring, ...)



meshapps

ORG: ScienceMesh REPO: ScienceMesh Charts

VERSION: 0.0.3 APP VERSION: 0.0.1

Umbrella-repository of apps supported by the IOP and its adapters

★ 0 [Helm chart](#)

Updated 9 months ago

 Verified Publisher  Images Security Rating

Optional applications to enable in your EFSS through IOP (CODIMD, Collabora, Etherpad, ...)



[Documentation](#)

- Documentation
- Overview
- Architecture
- How to join Science Mesh
- Governance and Operations
- Technical Documentation
- Central Component
- Central Database
- IOP**
- Deployment
- Monitoring and Accounting
- Integrations
- Support
- Procedures

[Documentation](#) / [Technical Documentation](#) / [IOP](#)

Inter-Operability Platform

What is the IOP?

What is the IOP?

ScienceMesh is the Federated Science Cloud Mesh that connects existing and heterogenous sites in a transparent way. Is very important to ensure inter-operability that the sites are able to talk to each other independently of the technology stack. For such reason, the IOP is a compoent to be deployed in each site to ensure compatibilty across sites and being able to join the mesh.

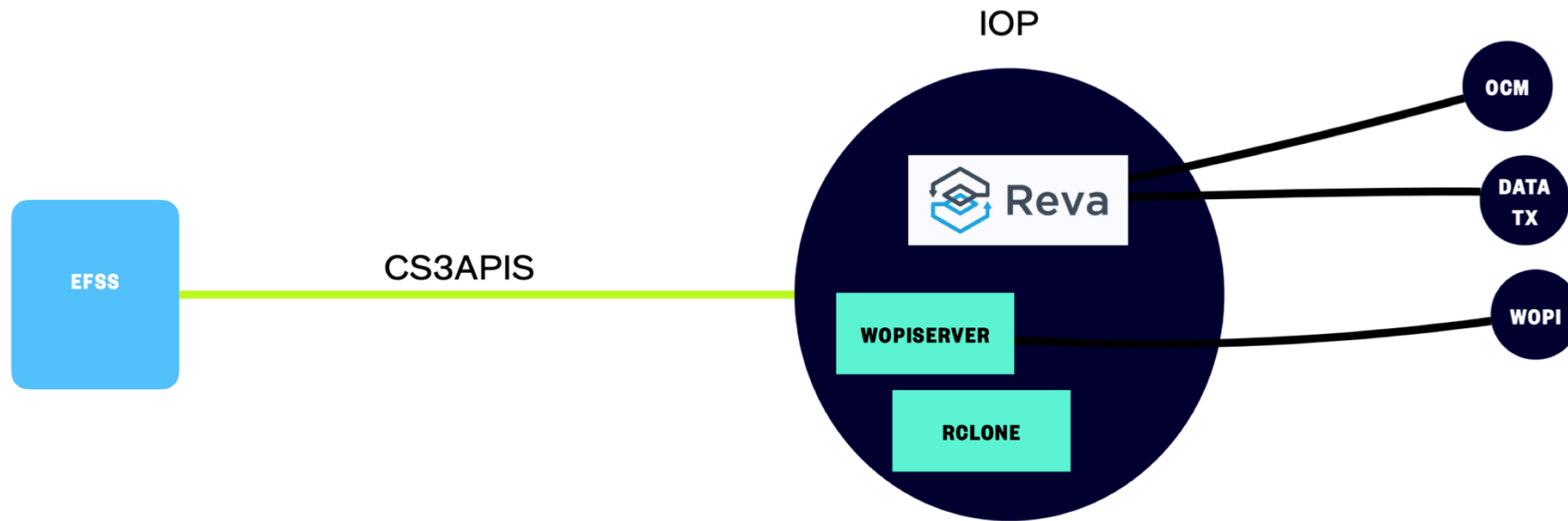
How deploy the IOP?

We have prepared some guides on how to deploy the IOP, check the link below.

- [Edit this page](#)
- [Create documentation issue](#)
- [Create project issue](#)

[What is the IOP?](#)

[How deploy the IOP?](#)

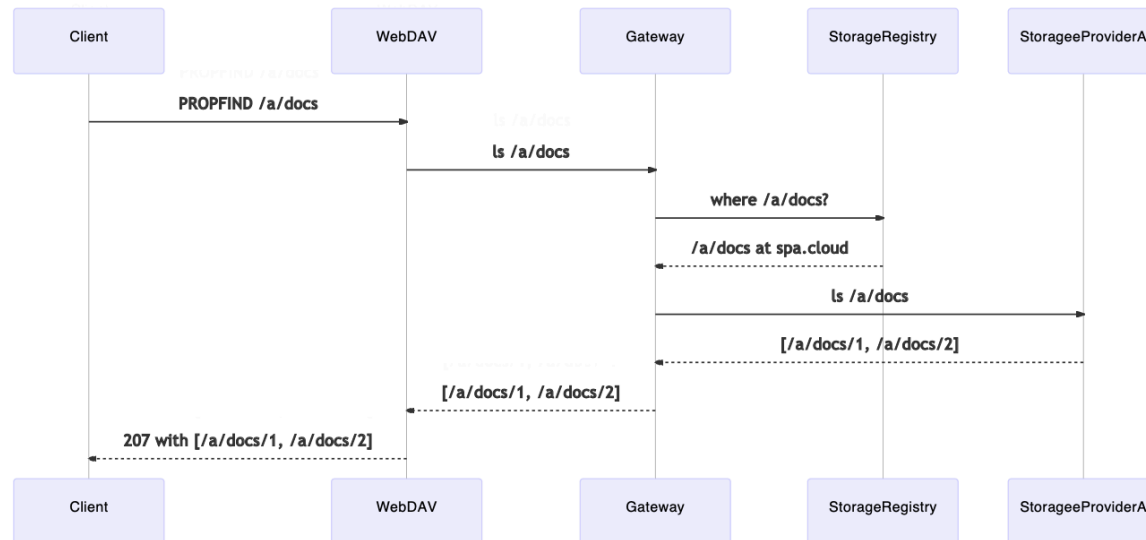


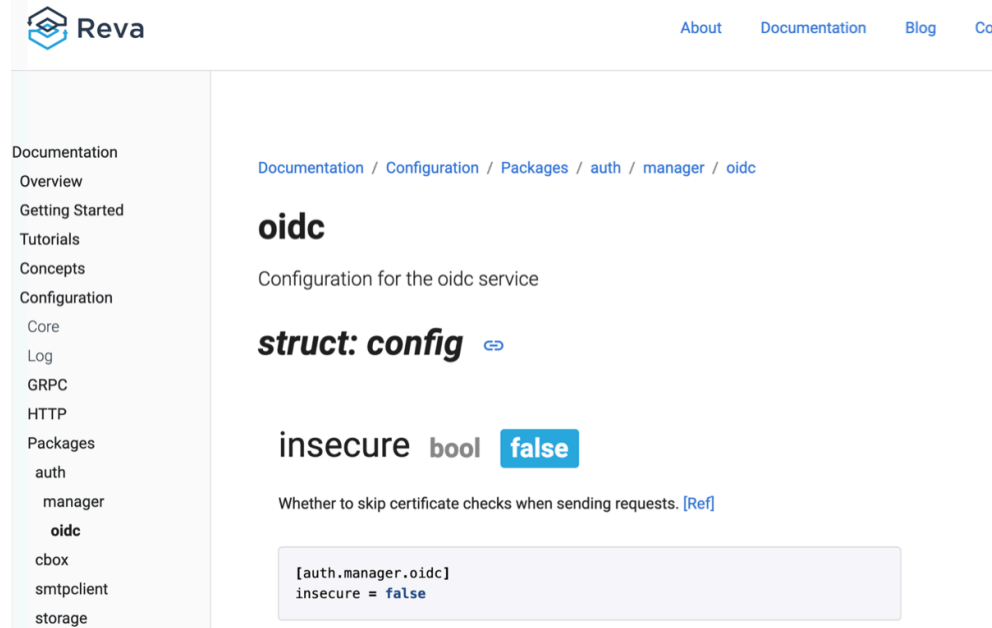
The IOP contains multiple components packaged into a K8S chart for easy deployment

```
helm install iop sciencemesh/iop \
--set-file revad.configFiles.revad\\.toml=standalone.toml \
--set-file revad.configFiles.users\\.json=users-cern.json \
--set-file revad.configFiles.ocm-providers\\.json=providers.demo.json \
-f custom-ingress.yaml
```

- Reva is a web (http) and GRPC server, written in Go
- Implements various interoperability APIs: CS3APIs, OCM, WebDAV
- Provides extension points for new storages, auth mechanisms, apps, ...

Listing a container, a.k.a folder/directory





The screenshot shows the Reva documentation website. The left sidebar contains a navigation menu with categories like Documentation, Configuration, and Packages. The main content area is titled 'oidc' and describes the configuration for the oidc service. It includes a 'struct: config' section with a code block for the 'insecure' setting.

Documentation / Configuration / Packages / auth / manager / oidc

oidc

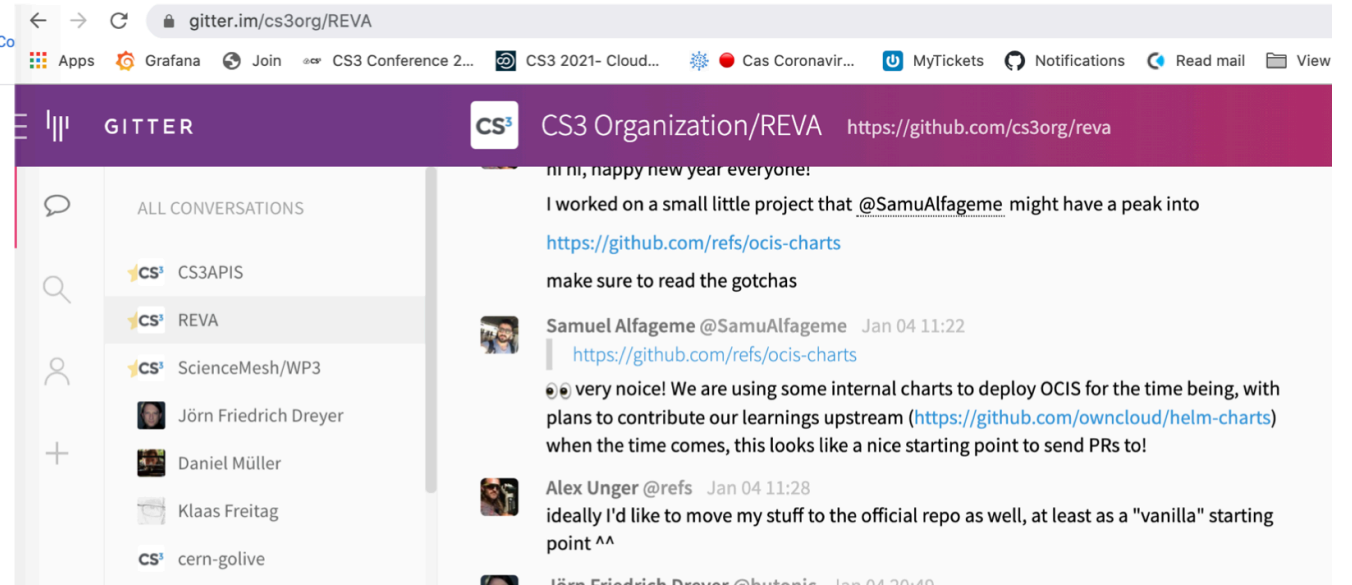
Configuration for the oidc service

struct: config

```
insecure bool false
```

Whether to skip certificate checks when sending requests. [Ref]

```
[auth.manager.oidc]
insecure = false
```



The screenshot shows a Gitter chat conversation in a web browser. The browser address bar shows 'gitter.im/cs3org/REVA'. The chat interface includes a sidebar with a list of conversations and a main chat area with messages from Samuel Alfageme and Alex Unger.

gitter.im/cs3org/REVA

GITTER CS³ CS3 Organization/REVA <https://github.com/cs3org/reva>

ALL CONVERSATIONS

- CS³ CS3APIS
- CS³ REVA
- CS³ ScienceMesh/WP3
- Jörn Friedrich Dreyer
- Daniel Müller
- Klaas Freitag
- CS³ cern-golive

mhm, nappy new year everyone!

I worked on a small little project that @SamuAlfageme might have a peak into <https://github.com/refs/ocis-charts> make sure to read the gotchas

Samuel Alfageme @SamuAlfageme Jan 04 11:22 <https://github.com/refs/ocis-charts>

very noice! We are using some internal charts to deploy OCIS for the time being, with plans to contribute our learnings upstream (<https://github.com/owncloud/helm-charts>) when the time comes, this looks like a nice starting point to send PRs to!

Alex Unger @refs Jan 04 11:28 ideally I'd like to move my stuff to the official repo as well, at least as a "vanilla" starting point ^^

Jörn Friedrich Dreyer @butonic Jan 04 20:49

<https://reva.link>

<https://gitter.im/cs3org/REVA>



CS³
MESH⁴
EOSC

Connecting European Data

Thank you!
Discover more on...

 cs3mesh4eosc.eu

 [company/cs3mesh4eosc](https://company.linkedin.com/cs3mesh4eosc)

 [@cs3mesh4eosc](https://twitter.com/cs3mesh4eosc)



CS3MESH4EOSC has received funding from the European Union's Horizon 2020 Research and Innovation programme under **Grant Agreement No. 863353**.