



Open Cloud Mesh CS3 Workshop

Convener: Giuseppe Lo Presti, CERN

20/11/2024

Welcome and logistics



- **Informal, technical-focused workshop, for the CS3 Community**
 - 17 people registered
- **The workshop is being recorded**
- **A summary will be given at the next CS3 event: 19-21 March 2025 in Munich**
 - Check it out at <https://cs3.physik.lmu.de> – registration has opened!



Agenda

09:30	→ 09:35	Introduction	Welcome and short introduction to this online workshop Speaker: Giuseppe Lo Presti (CERN)
09:35	→ 10:55	Status reports	Current status and plans from the implementers. 15' max + 5' questions per slot. Convener: Dr Giuseppe Lo Presti (CERN)
09:35		Seafile	Speaker: Jonathan Xu
09:55		ownCloud	Speaker: Dr Jörn Dreyer (ownCloud GmbH)
10:15		Nextcloud	Speaker: Mr Maxence Lange (Nextcloud GmbH)
10:35		CERNBox	Speaker: Giuseppe Lo Presti (CERN)
11:00	→ 11:10	Break	Virtual coffee break
11:10	→ 12:30	OCM Evolution	The current standard and the IETF Draft, new ideas, testing, sustainability. The NLnet project and what's next. Convener: Micke Nordin (SUNET)
11:10		The NLnet-funded project	Milestones achieved so far: the test suite, the new Internet-Draft specification Speakers: Mahdi Baghbani (Ponder Source), Michiel de Jong, Micke Nordin (SUNET)
11:50		Discussion	Speakers: Mahdi Baghbani (Ponder Source), Michiel de Jong, Micke Nordin (SUNET)
12:30	→ 12:40	Conclusions and wrap up	

“Breaking News”: OCM v1.2 is out!

- The repo has been tagged this morning
 - Protocol spec in IETF RFC format: <https://www.ietf.org/archive/id/draft-lopresti-open-cloud-mesh-00.html>
 - API spec: <https://cs3org.github.io/OCM-API/docs.html?branch=v1.2.0&repo=OCM-API&user=cs3org>

Workgroup: Network Working Group
Internet-Draft: draft-lopresti-open-cloud-mesh-00
Published: 15 November 2024
Intended Status: Standards Track
Expires: 19 May 2025
Authors: G. Lo Presti M. B. de Jong M. Baghbani M. Nordin
CERN Ponder Source Ponder Source SUNET

Open Cloud Mesh

Abstract

Open Cloud Mesh is a server federation protocol that is used to notify a Receiving Party that they have been granted access to some Resource. It has similarities with authorization flows such as OAuth, as well as with social internet protocols such as ActivityPub and email.

Open Cloud Mesh only handles the necessary interactions up to the point where the Receiving Party is informed that they were granted access to the Resource. The actual resource access is then left to protocols such as WebDAV and others.

Status of This Memo

This Internet-Draft is submitted in full conformance with the provisions of BCP 78 and BCP 79.

Internet-Drafts are working documents of the Internet Engineering Task Force (IETF). Note that other groups

OCM in CERNBox

Giuseppe Lo Presti for the CERNBox Project

Current Status

- **CERNBox/Reva implements OCM v1.1**
 - Capabilities: invite flow, webapp & data tx protocols
 - Part of ScienceMesh implementation
 - Option to connect to a ScienceMesh directory (allowlist) for the invites, or to allow any remote party
- **Usage**
 - Tested as part of CS3MESH4EOSC (ScienceMesh) activities, but not deployed in the production service
 - ownCloud ported this implementation to OCIS

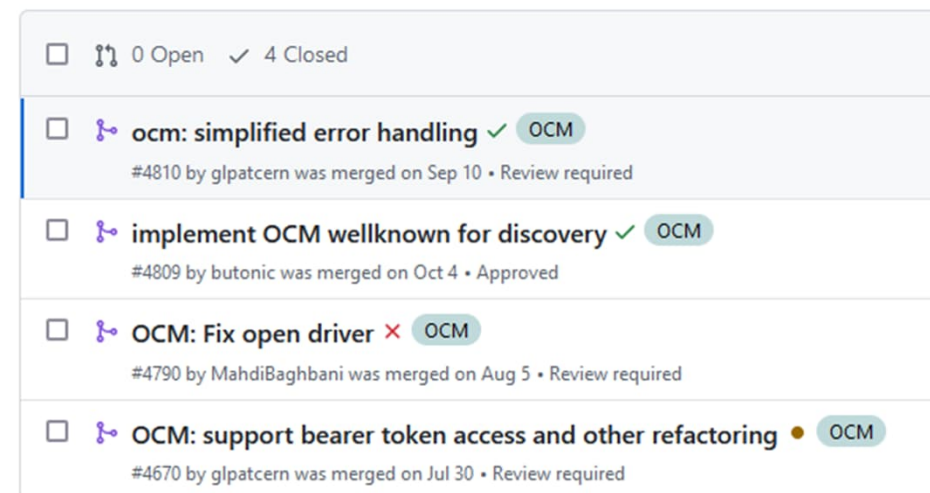
Work happened in 2024

- **Development**

- Limited effort available this year...
- Nevertheless, adopted from OCM v1.2 a few features:
 - /.well-known/ocm for discovery
 - Access via bearer token, no secret exposed in the URL

- **Testing**

- Until July: tests run on a VM, part of the ScienceMesh testbed infrastructure
 - A mini-CERNBox on top of EOS
- Meanwhile, a container-based “mini-dev-stock” setup was extended and eventually reincorporated in the OCM Test Suite (thanks Mahdi for helping out!), but Reva standalone needs some updates
 - **The localfs storage provider in Reva is not fully working**



A screenshot of a GitHub pull request list for the OCM repository. The list shows four pull requests, each with a checkbox, a merge icon, a title, a status indicator (checkmark or X), an OCM label, and a description of the merge.

PR #	Author	Merged On	Status	Label
0			4 Closed	
#4810	glpatcern	Sep 10	Review required	OCM
#4809	butonic	Oct 4	Approved	OCM
#4790	MahdiBaghbani	Aug 5	Review required	OCM
#4670	glpatcern	Jul 30	Review required	OCM

Future Work

- **Development**

- Significant “institutional” interest on keeping up with latest OCM standard
 - Including interest from other institutes wishing to run CERNBox at their premises
- => part of the OCM v1.2 capabilities will make it to the 2025 work plan

- **Testing**

- We are aware that some effort needs to be put in to allow Mahdi & co to test our implementation
- **CERNBox is not listed in the OCM Test Suite page and would benefit from it!**
 - ...For how long can we hold back?
- Will try and squeeze some time before year-end to at least get the testing running

Conclusions and Outlook

- **As the incubator of OCM v1.1, we want Reva to remain a reference implementation**
- **The capabilities in OCM v1.2 make for an attractive, security-aware package**
 - “Easier” to defend the required effort as part of our 2025 roadmap
- **Thank you to all people involved for a very nice collaboration around the evolution of the Open Cloud Mesh standard!**