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Open Cloud Mesh (OCM) - Towards IETF standardization of trusted resource sharing

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"Open Cloud Mesh (OCM) is a server federation protocol that is used to notify a receiving party that they have been granted access to some resource."
This is the simple, yet effective introduction to the IETF draft of the Open Cloud Mesh (OCM) specification. The proliferation of cloud storage solutions has led to a fragmented landscape, where seamless and secure sharing of resources across organizational and platform boundaries remains a significant challenge. The Open Cloud Mesh (OCM) protocol addresses this gap by providing a standardized server federation mechanism that enables interoperable sharing of cloud resources between independent service providers.
With OCM being one of the key requirements of the EOSC federation, it ultimately aims to contributing to a 'web of FAIR (Findable, Accessible, Interoperable and Reuseable) data and services' for science in Europe, upon which a wide range of value-added services can be built. During the EOSC Symposium 2025, EOSC Node candidates for a trusted OCM federation have been announced, with participants from the EU Node, CERN, SURF, Finland, and EUDAT, implemented by underlying OCM-compatible technologies from ownCloud, Nextcloud, CERNbox, and openCloud.
This presentation will detail the architecture, core protocol flows, and security considerations of OCM, highlighting its potential to enable a truly open and interoperable cloud ecosystem. Attendees will gain insights into implementation strategies, integration scenarios, and the broader impact of OCM on collaborative research and cross-cloud interoperability.

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