



ESCAPE

European Science Cluster of Astronomy &
Particle physics ESFRI research Infrastructures

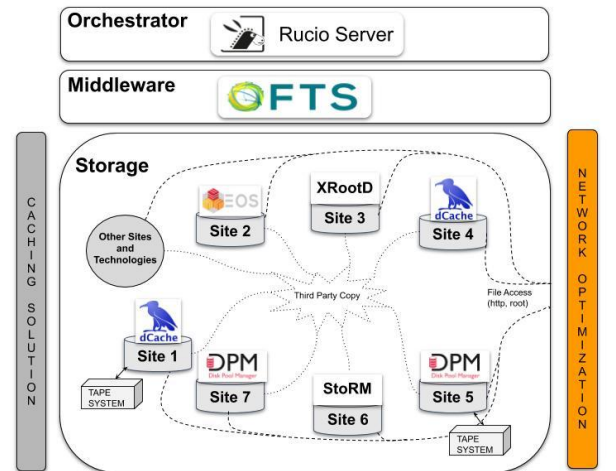
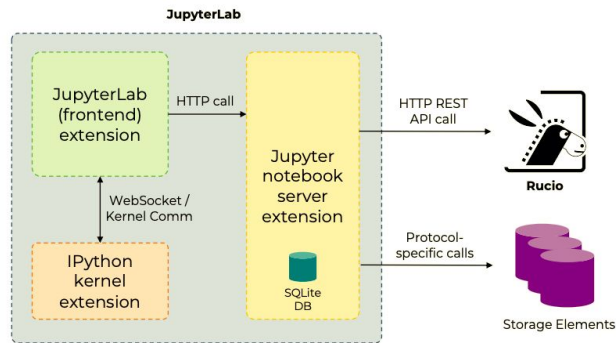
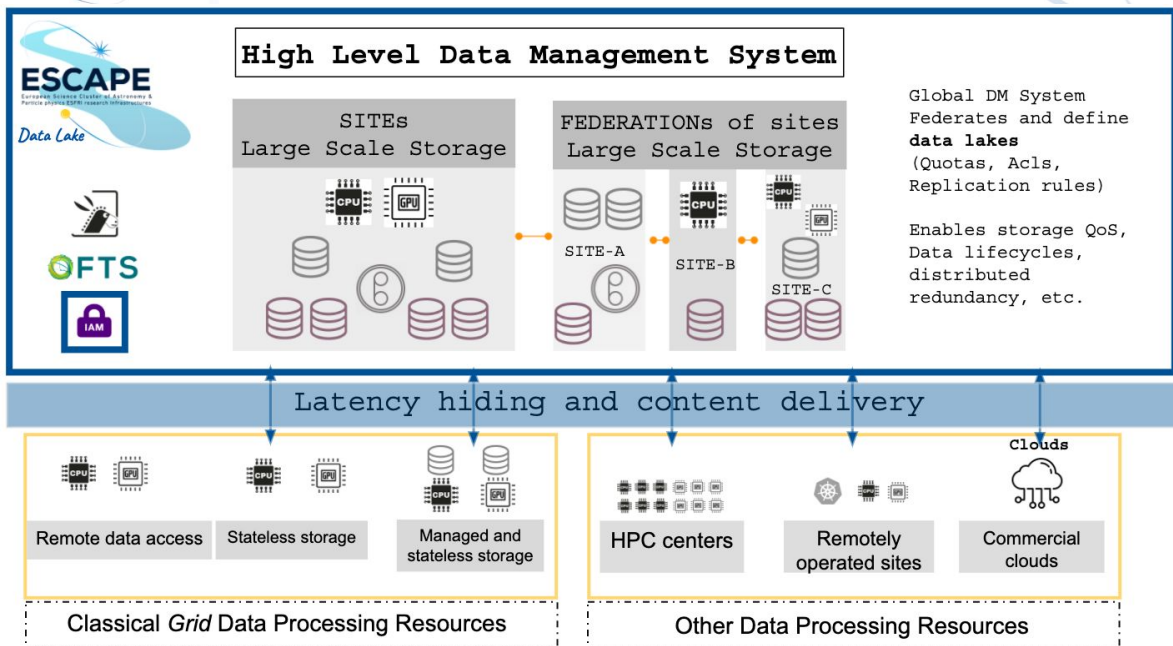
ESCAPE and Science Mesh

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Science Mesh Workshop - Panel discussion 26 Jan 2022



ESCAPE and Science Mesh: The ESCAPE Scientific-Data Lake



- **Bringing big science data to the researcher fingertips:** data lake integration with notebooks and analysis platforms
- Data lake model and tools **evolving and being adopted beyond particle physics** covering different use cases and needs. Possibilities to **further extend capabilities**, ie. via CS3MESH4EOSC/ScienceMesh



ESCAPE and Science Mesh: a possible collaboration scope

- **Goal:** Provide a **Data Management and Access *facilitating*-service**, in the EOSC portal and/or an integral solution deployable for projects, experiments or collaborations.
- **Why?** Bridge diverse scientific data (size does not matter) with researchers, outreach activities and open science initiatives.
 - Data Lake services for the heavy lifting done by experiment experts (ie. data injection, policies and rules)
 - ScienceMesh putting data at the service of the population, ie. via notebooks and integrated with sync&share tools to boost scientific collaborations, and home directories.
- **What?** Provide hints in the form of PoC to put forward these ideas and offer the possibility to connect ScienceMesh with the Data Lake infrastructure(s)
- **How?** Enabling Science Mesh activities in the ESCAPE Data Lake.
 - Integrated access to the Data Management system (Rucio) and the Data Transfer/Movement service (FTS)
 - Certify transversal token-based AAI (IAM based): ensure IAM-issued tokens are trusted by Science Mesh nodes and coherent across the full “data chain”
- **A possible catalizer?** LOFAR very active in ESCAPE, production workloads certified from data injection to analysis. Also with applied use-case in Science Mesh. Sounds like reasonable PoC to start with?