TF Technical and Semantic Interoperability and AAI

Webinar SND

2024-12-11 by Jonas Söderberg

Background

- Technical specifications, protocols, contracts, and services help communication within EOSC.

- They should include guidelines for sharing information between nodes, like service contracts, APIs, and data formats.

- AAI is an important service that handles user authentication and authorization smoothly.

- Semantic interoperability ensures that information is understood correctly across different systems. This involves using knowledge graphs, semantic tools, and shared concepts.

- All these elements together ensure smooth communication at both the protocol and data levels.

- Access to high-quality, compatible research outputs and services across EOSC.

- Integrates semantic and technical layers of interoperability and the structure of Authentication and Authorization.

Members

Lots of people

Board Liaison

Bob Jones CERN

Co-chairs

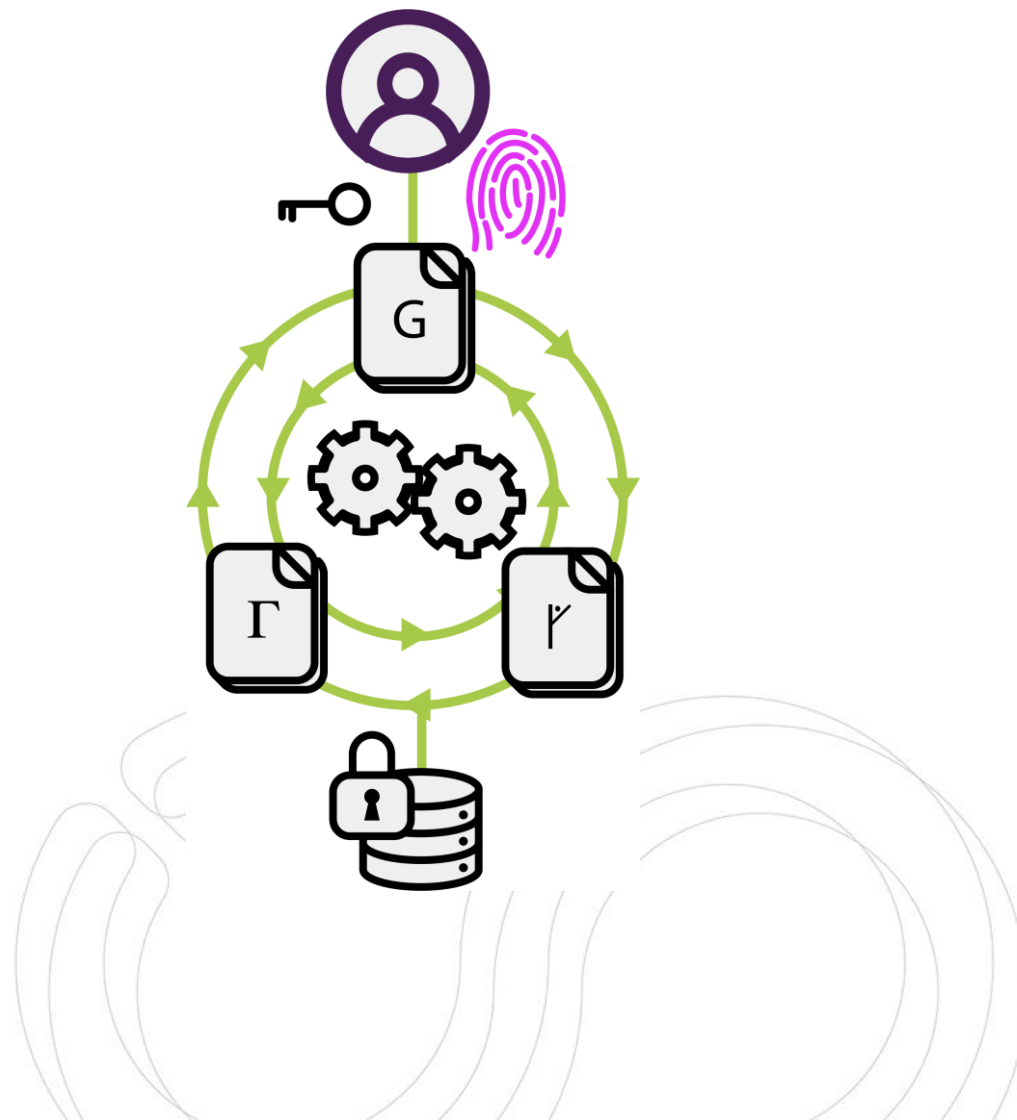Diego Scardaci
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Christof Lorenz KIT	**Heinrich Widmann** DKRZ	**Matthew Morris** CESSDA	**Rinke Hoekstra** Elsevier	
	Hilde Orten Sikt	**Mattia Santoro** CNR	**Roksana Wilk** CYFRONET	
	Javier de la Cueva Javier de la Cueva	**Milan Ojsteršek** University of Maribor, HPC RIVR	**Silvia Chiacchiera** UKRI-STFC	
	Jean-Karim Hériché	**Morten Wergeland Hansen** MET Norway	**Silvio Peroni** Università di	

Three coordinated subgroups

Three foci

- Technical Interoperability, focused on the interoperability of services supporting EOSC.

- Semantic Interoperability, focused on establishing mutual understanding of the exchanged data

- Authentication and Authorisation Infrastructure, focused on the definition of the EOSC AAI architecture

- Gather feedback and requirements

- Facilitate interactions and common developments of EOSC related projects

- Identify high-value use cases

- Strategically survey and analyse the technical activities of EOSC projects and provide recommendations

Key Focus Areas

Actions in the Task Force

- Identify aspects at different "maturity levels"

- Best practices and recommendations

- Introduce EOSC Federation of Nodes with user community requirements

- Practical guidelines, shared vocabularies and ontologies

- Expand the FAIR Digital Objects model

- Identify and assess requirements and gaps for the EOSC AAI.

- Maintain and update the EOSC AAI Architecture

Subgroups

Activities in the subgroups

Technical Interoperability

- Landscaping
- Framework - gaps and recommendations
- Technical models

Semantic Interoperability

- Landscaping
- Framework
- Semantic models
- More landscaping

Authentication and Authorisation Infrastructure

- Identify new use cases and requirements
- Next version of the EOSC AAI Architecture

Subgroups

Technical Interoperability

Month	Type of outcome	Title
Q2 2025	Deliverable 1	Status of the Technical Interoperability in the EOSC Federation and initial gap analysis
Q4 2025	Deliverable 2	Provisional report on the Technical aspects of the EOSC Interoperability Framework, EOSC Federation Technical Architecture and implementation recommendations
Q3 2026	Deliverable 3	Final report on the Technical aspects of the EOSC Interoperability Framework and EOSC Federation Technical Architecture and implementation recommendations

Semantic Interoperability

Month	Type of outcome	Title
Q2 2025	Deliverable 1	Status of the Semantic Interoperability in the EOSC
Q4 2025	Deliverable 2	Provisional report on the semantic aspects of the EOSC Interoperability Framework
Q3 2026	Deliverable 3	Report on other possible interoperability aspects of the EOSC Federation with a special focus on the Data Spaces initiative.
Q4 2026	Deliverable 4	Final report on the semantic aspects of the EOSC Interoperability Framework

Subgroups

Authentication and Authorisation Infrastructure

Month	Type of outcome	Title
Q1 2025	Deliverable 1	Requirements for the EOSC AAI v2024
Q4 2025	Deliverable 2	EOSC AAI Architecture v2025
Q1 2026	Deliverable 3	Requirements for the EOSC AAI v2025
Q4 2026	Deliverable 4	EOSC AAI Architecture v2026