Task Force charter template
Technical Interoperability of Data and Services

Main aims

The Task Force will take the EOSC Interoperability Framework (EIF) recommendations around technical architecture (https://doi.org/10.2777/620649) as their starting point to help develop the EOSC Core and Exchange as described in the SRIA document (https://www.eosc.eu/sites/default/files/EOSC-SRIA-V1.0_15Feb2021.pdf). Activities will include engaging with the community to co-ordinate the federation of thematic services, infrastructure services, generic services and datasets and activities to advance the composability of resources.

The EOSC Core and Exchange will adopt a system of systems approach to create interoperability whilst preserving a healthy diversity of discrete components, both on the semantic as well as the technical level. That puts a strong focus on the interworking of these components. This Task Force will enable the EOSC-Future project, other EOSC projects and the EOSC resource providers to harmonize their approaches to achieve interoperability.

The Task Force will also take the outputs of other Task Forces like AAI, Semantic Interoperability, Persistent Identifiers and combine them into an overarching and integrating view.

Core activities

The activities of the TF are:
- A first principles discussion on the guiding principles for interoperability, such as user experience, building on the output of the EOSC Interoperability Framework WG.
- A landscape overview and analysis of the existing systems and interoperability standards that are in place or being developed as part of other EOSC Projects or national EOSC activities and computing / data centres related to the community (e.g. EuroHPC) and other initiatives.
- Promote alignment between EOSC standards and industry-related major activities such as GAIA-X.
- A technical architecture discussion for the EIF including a classification of the categories of services (e.g. data searching/access services, data analysis services, visualization services etc.) to identify the main technical areas that require the development of interoperability guidelines. Various stakeholders perspectives, e.g. from the view of infrastructure providers, scientific users, data life cycle, etc. will be taken into account.
- An inventory of data and metadata formats, interfaces and access protocols that are in use by the EOSC stakeholders, to identify and specify a minimal set of functionalities.

- Promote cooperation between entities producing components and services that enable EOSC interoperability.
- Promote consumption of EOSC interoperability standards and services by members of the EOSC exchange and beyond. Encourage interoperability developers to assess consumer's feedback and iteratively improve their standards and services.

The outputs are:
- A first principles document.
- A landscape overview (capabilities and gaps) of the EIF.
- A draft technical architecture description of the EIF, including an inventory of a category of services and data and metadata formats and access protocols and the specifications of a minimal set of functionalities, such as high level APIs for data transfer, service discovery, etc.
- A technical architecture description of the EIF, including examples of adaptation hints for major existing solutions.

Planned duration

24 months

Working methodology

The day-to-day collaboration of the Task Force will happen though the mailing list. A regular video conference call will be used to coordinate the work. The time slot and frequency of the task force calls will be decided by the task force with the focus to allow for short incremental steps and quick feedback cycles.

The EOSC Interoperability Task Force will solicit input from the community at large through workshops. We envisage at least 2 workshops per year, preferably co-located with high profile events where the community at large is represented like EOSC symposium. Results of the Task Force shall be made available in the public domain.

The Task Force shall define its yearly work plan that contains specific deliverables and results. The work plan will depend on prioritization given by the Task Force members, but also on the available contributors and their ability to commit. The yearly plan will be evaluated and updated each 6 months.

Dependencies

The activities in the TF will require interactions with other external activities and initiatives, such as:
- Other EOSC-A Task Forces, like :
    - Semantic Interoperability: semantic architecture.
    - PID policy and implementation.
    - FAIR Metrics and Data Quality.
    - AAI Architecture.
- EOSC projects, especially EOSC-Future.
- National EOSC activities.

- Thematic Data centres, data repository owners, large and heterogeneous federated infrastructures and HPC centres involved in the implementation of EOSC.
- RDA WG and IG related to interoperability (i.e. Research Data Repository Interoperability WG).

Membership

General considerations:
- Consider a wide participation to ensure the acceptance by a large number of community representatives, including stakeholders from EOSC projects.
- Consider adding additional experts along the development of the activities to gather new profiles that could be identified during the activity of the TF.
- Consider representatives from other european major public cloud projects, such as Gaia-X and EuroHPC.

The different profiles that will be needed:
- Technical experts on:
    - Interoperability protocols (OGC, w3c, ...).
    - Data (formats, metadata, ...).
    - Large and heterogeneous federated infrastructures.
    - Services (visualization, data discovery, data analysis, catalogs, computing services and provisioning systems, ...).
    - Cybersecurity
- Representatives of thematic communities (from EOSC projects and other TF).
- End-users from:
    - Research communities.
    - Interdisciplinary users.
    - Data Scientists.