



EOSC-hub Authentication & Authorisation Infrastructure

Overview



eosc-hub.eu

Dissemination level: Public

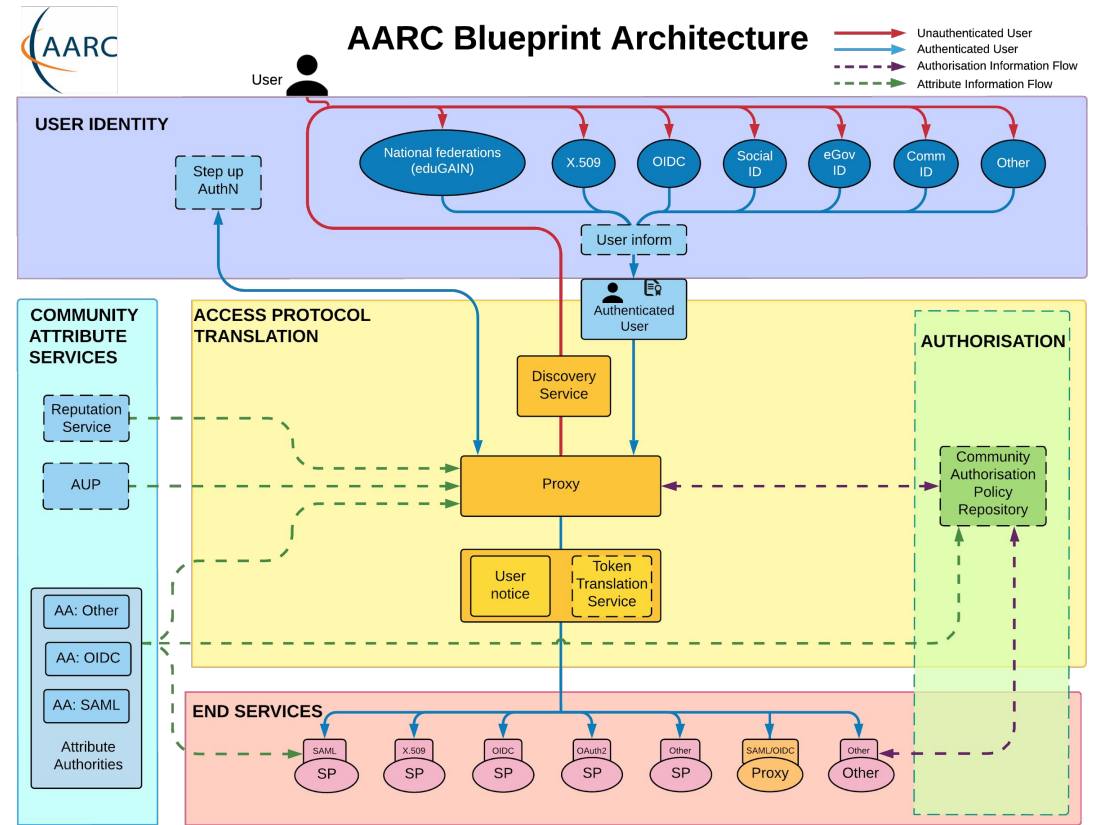
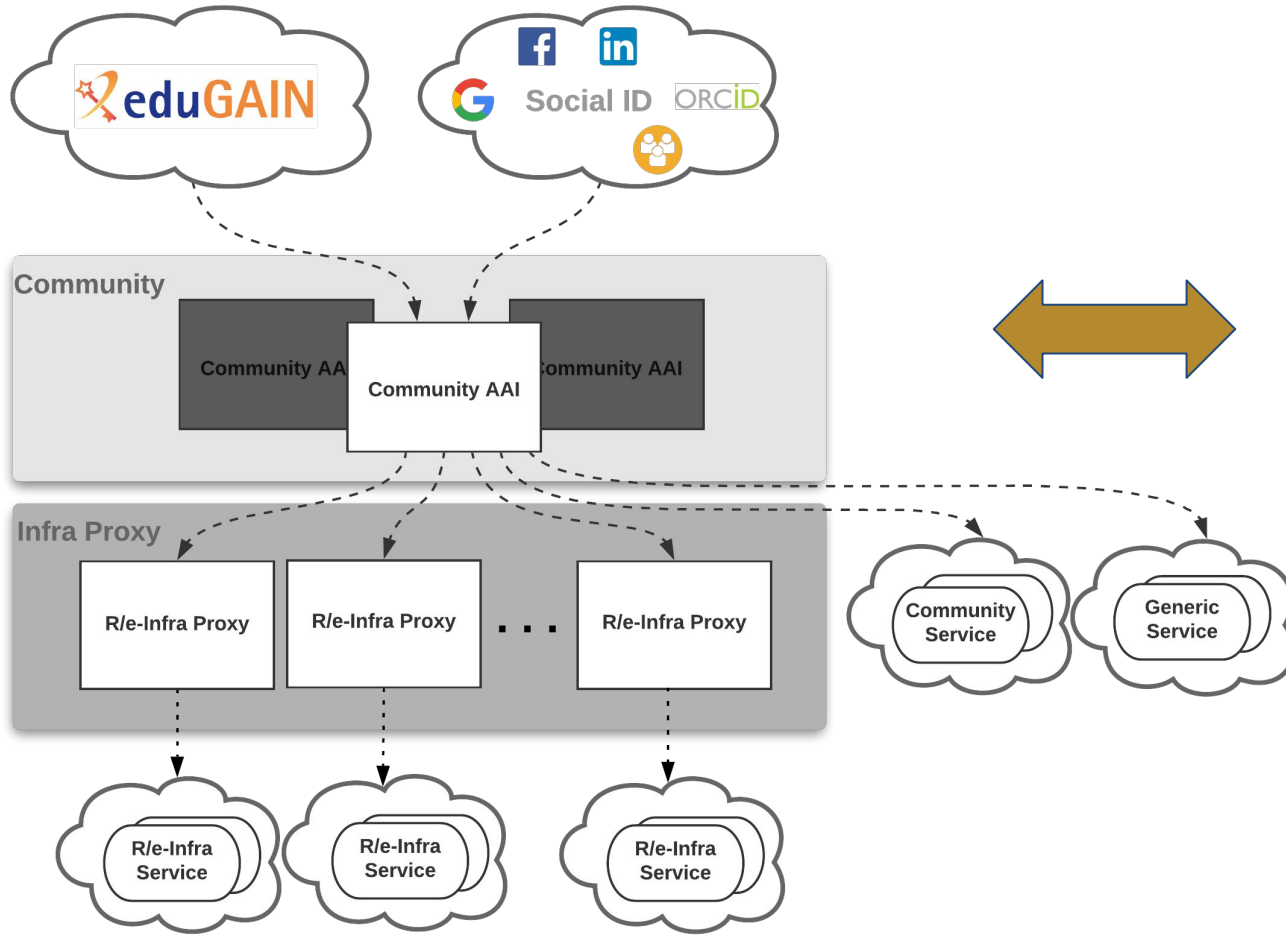


[@EOSC_eu](https://twitter.com/EOSC_eu)

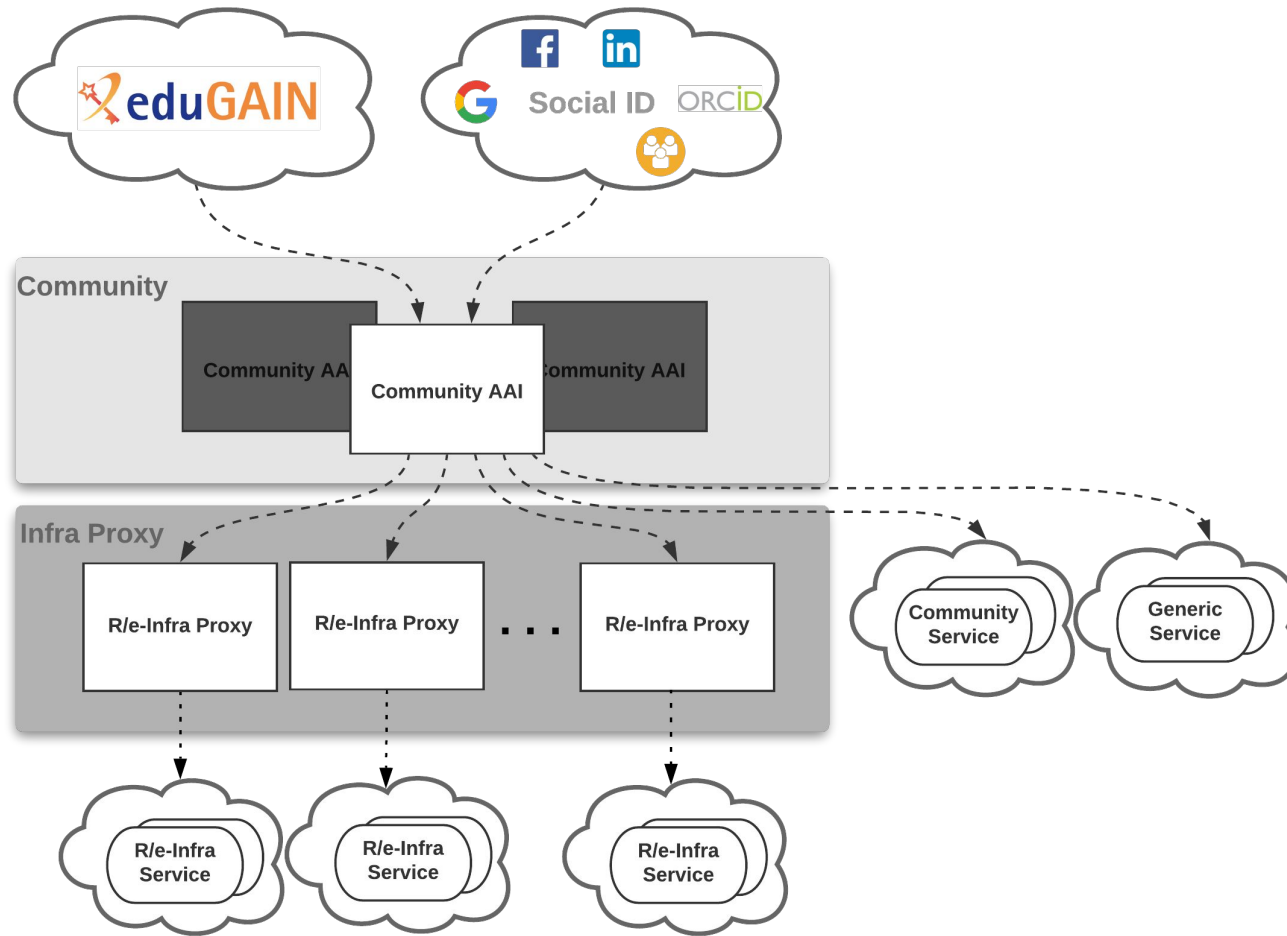


- Support **different authentications providers**, incl. eduGAIN, social media, ORCID, community-managed identity providers
 - Minimises the number of accounts users have to manage
 - Reduces complexity and security risks
- Access to multiple heterogeneous (**web and non-web**) services and resources offered by different infrastructures
- Allow a researcher to **link multiple identities** together (e.g. institutional & social) for accessing resources
- Enable **authorised access based on attributes** (e.g. user groups, roles, affiliation, bona-fide status) and **capabilities** managed by the user's Home IdP and/or the Research community

- **Interoperability and integration** with the existing AAI of e-Infrastructures and research communities
- Support services in receiving and processing consistent user attributes in compliance with the **minimal disclosure** principle
- Ensure good practices in **operational security**
- Enable the coordination of **incident response** across federated organisations
- Express the level of trust (**assurance**) in the user identity assertions
 - Higher assurance with identities from your home organisation

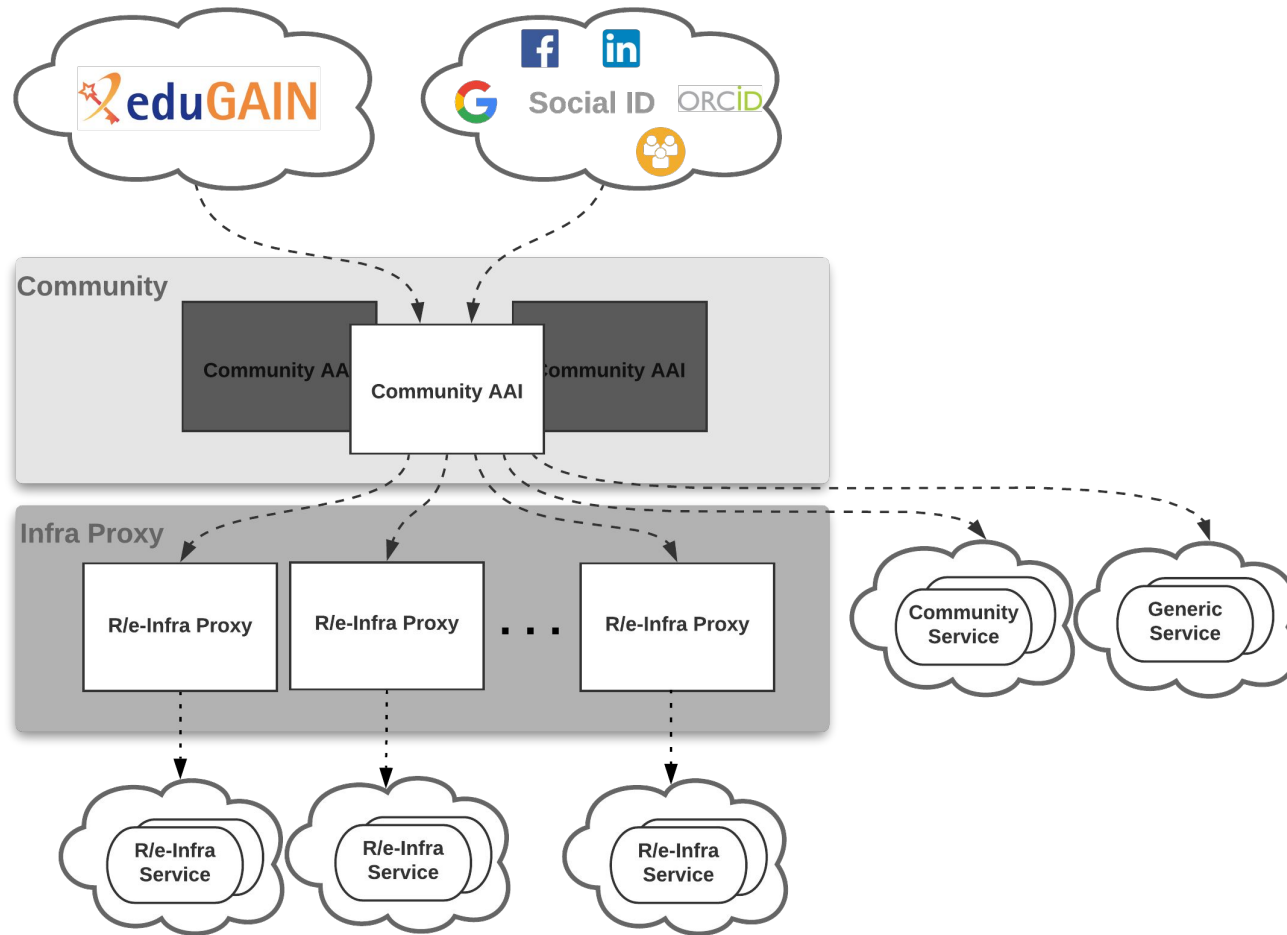


Implementation of the AARC Blueprint Architecture 2019

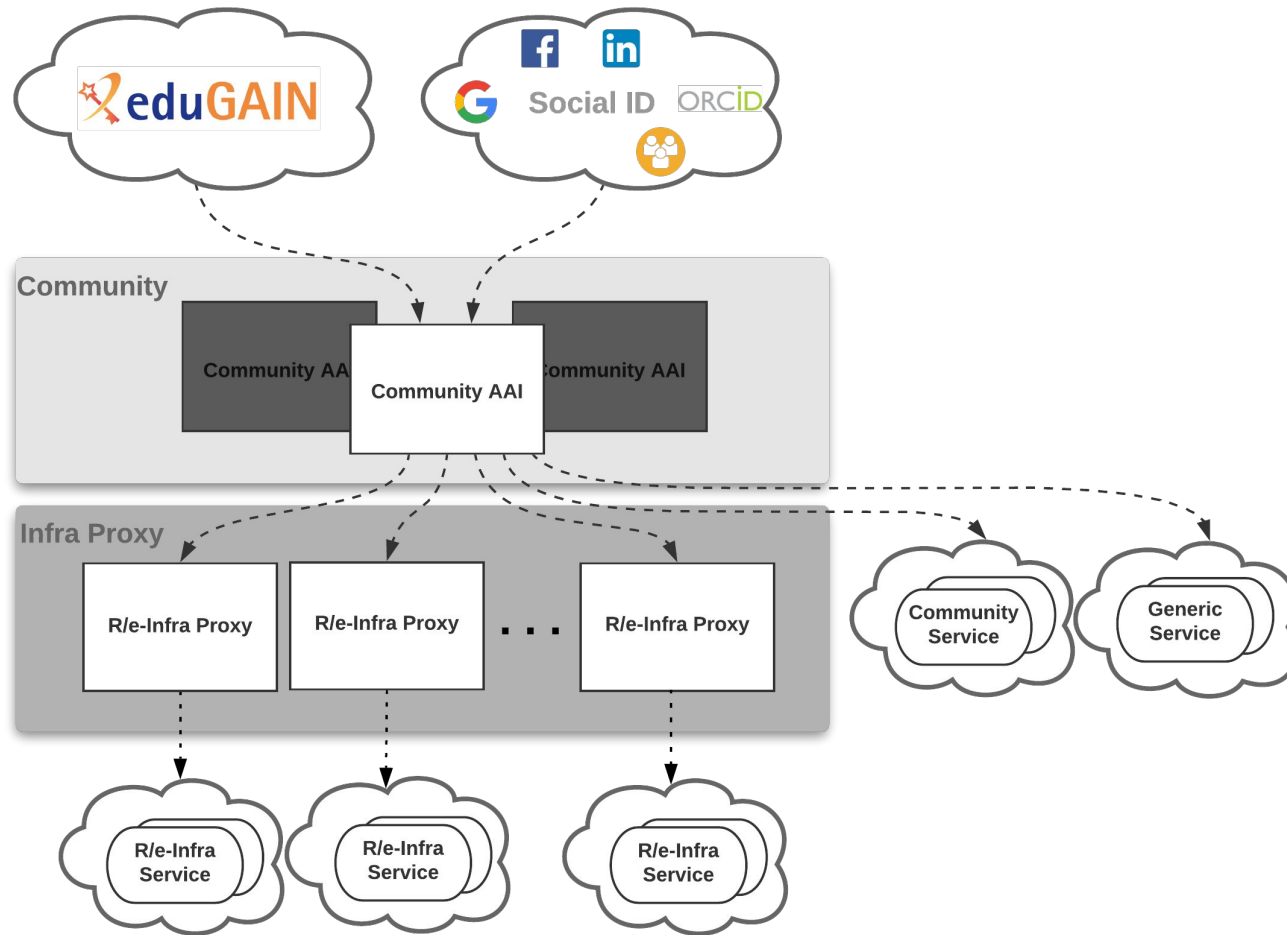


Layers:

- **Community:** Enables the use and management of community identities for access to EOSC resources
- **Infra Proxy:** Enables access to resources offered by Service/Resource Providers connected to the R/e-Infrastructures.

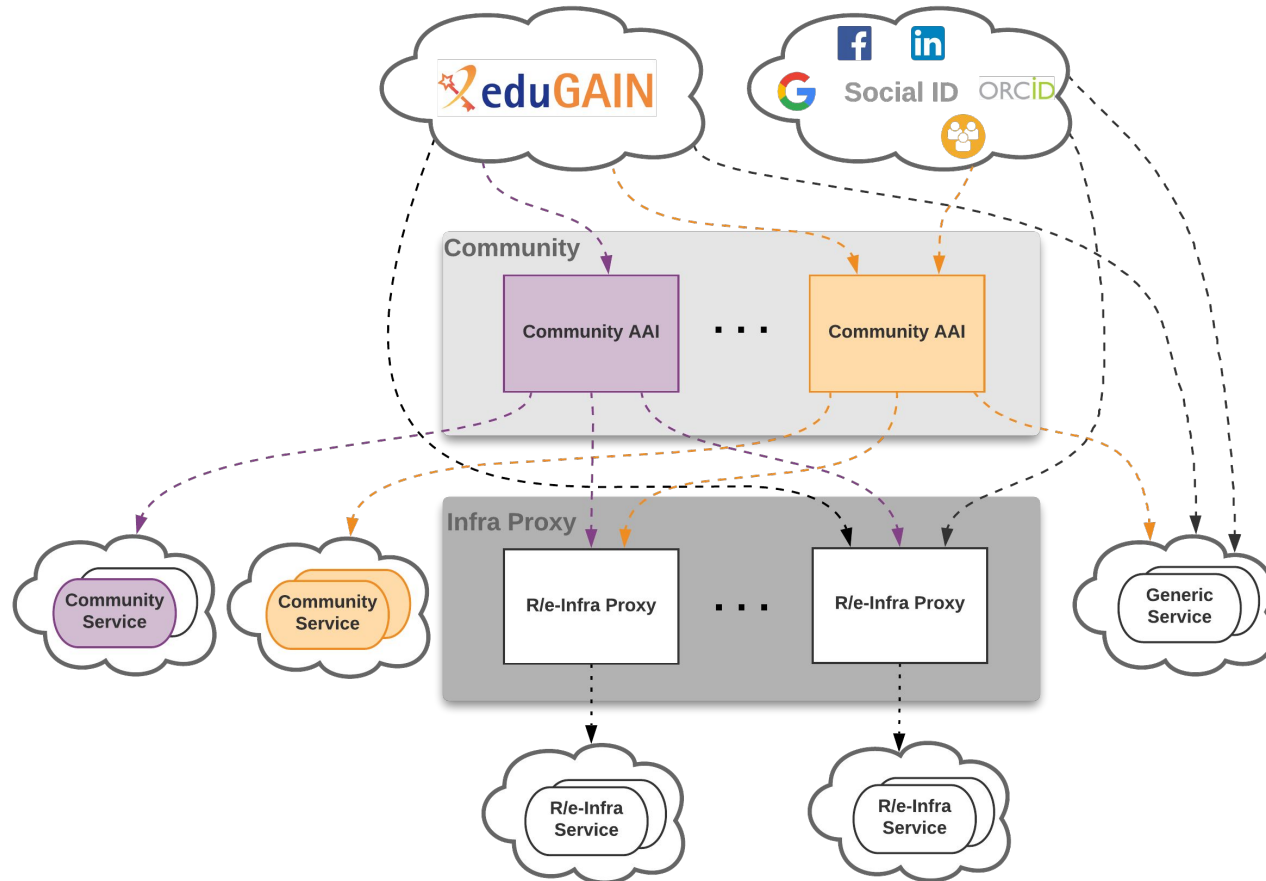


- Researchers register **once** with with their Community AAI
- Researchers **always** sign in via their Community AAI using their existing academic/social credentials for accessing:
 - **Community-specific** services
 - **Generic services** (e.g. RCauth.eu Online CA)
 - General-purpose **R/e-Infra services**



- R/e-Infra proxy serves as a single integration point for services
- No need to run an IdP Discovery Service on each service
- Services get consistent/harmonised user identifiers and accompanying attribute sets from different IdPs/AAs that can be interpreted in a uniform way for authorisation purposes

EOSC-hub AAI Architecture



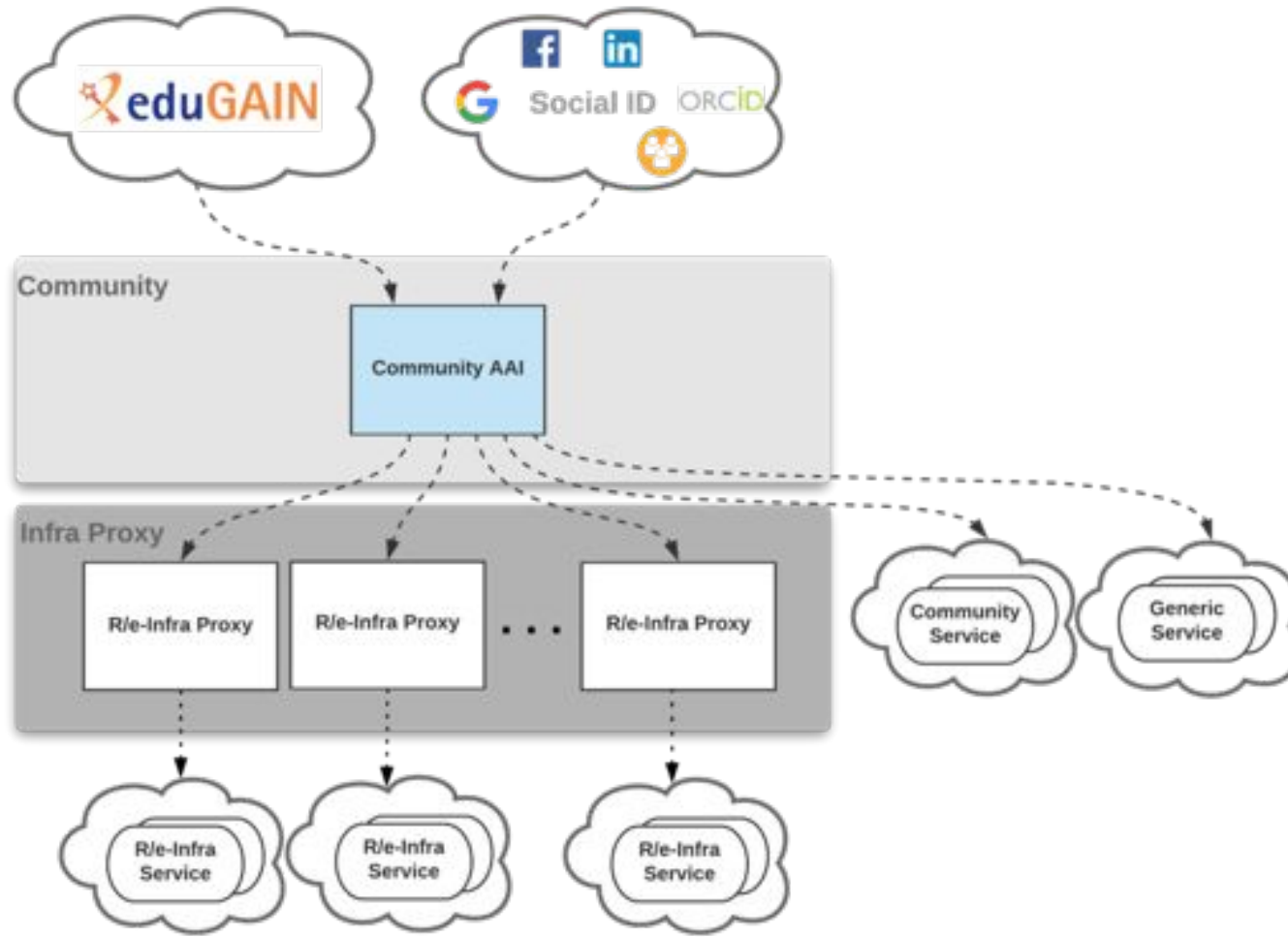
- Communities can support specific authentication options
- Communities can enable access to specific infrastructures by connecting to their proxies
- Access to infrastructure services & resources can be based on Community membership and/or Home Organisation affiliation
- Single integration point at the Community and the Infrastructure level → **easier integration for services**

EOSC-hub AAI Use Cases

- Consuming EOSC services & resources
- Providing services & resources through EOSC

EOSC-hub AAI Use Cases

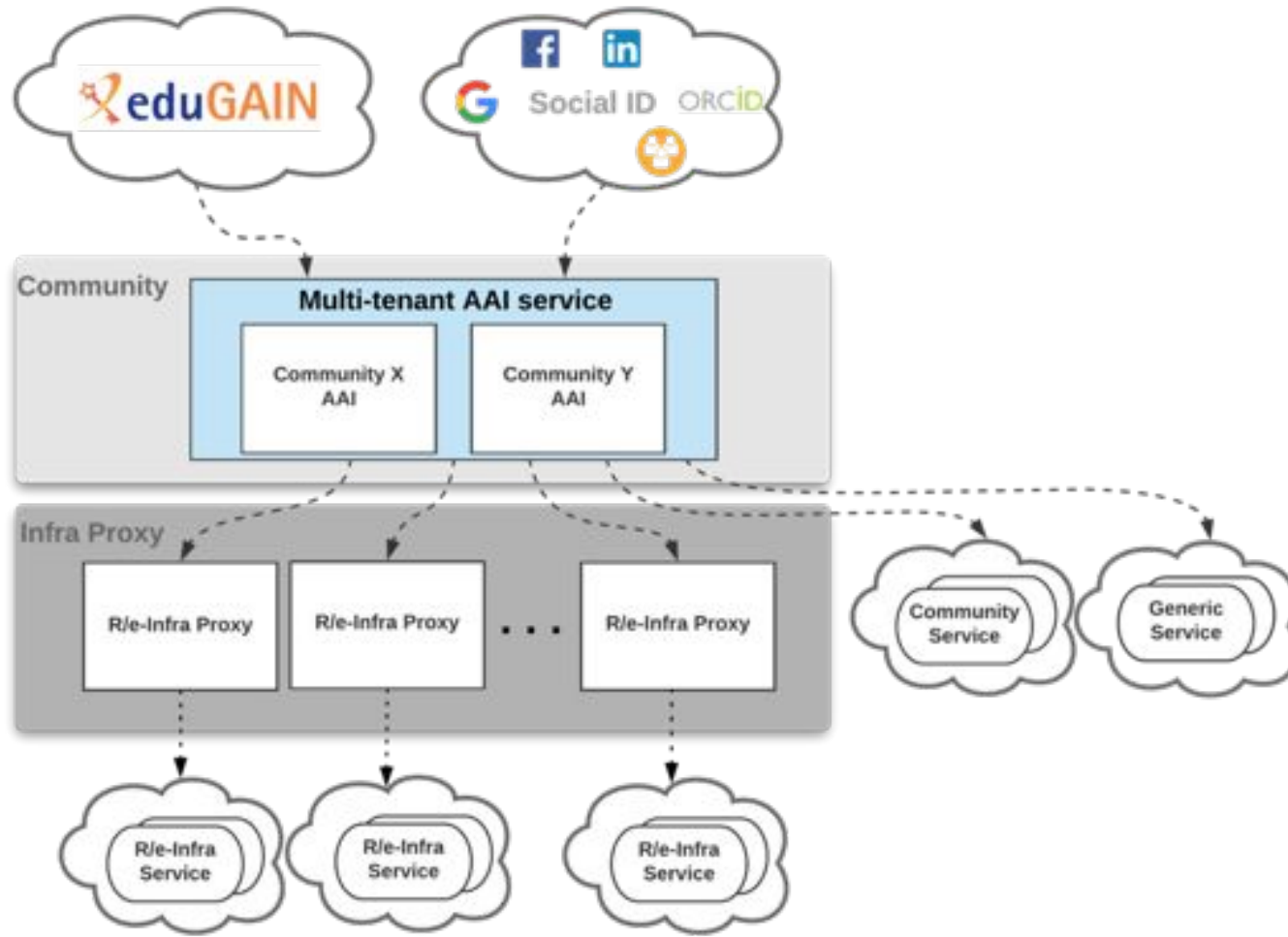
Consuming EOSC services & resources



- For **communities with an AARC BPA-compliant Community AAI**
 - They can connect their Community AAI to the Infra Proxy layer to enable community members to gain access to EOSC resources

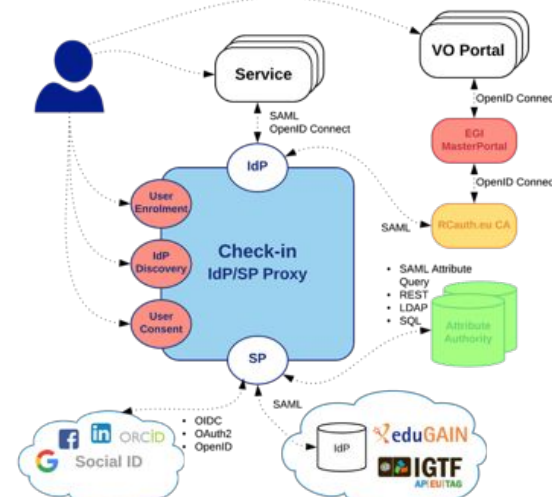
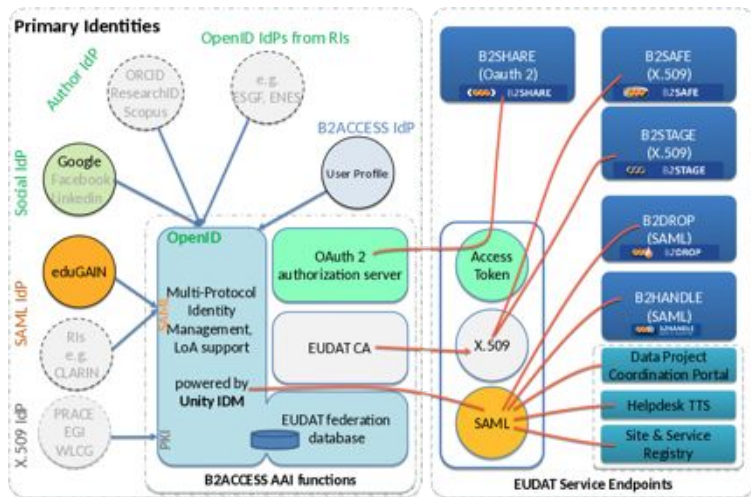
EOSC-hub AAI Use Cases

Consuming EOSC services & resources



- For **communities without an AAI**:
 - Different multi-tenant Community AAI service offerings, e.g.:
 - B2ACCESS
 - Check-in
 - eduTEAMS
 - INDIGO-IAM

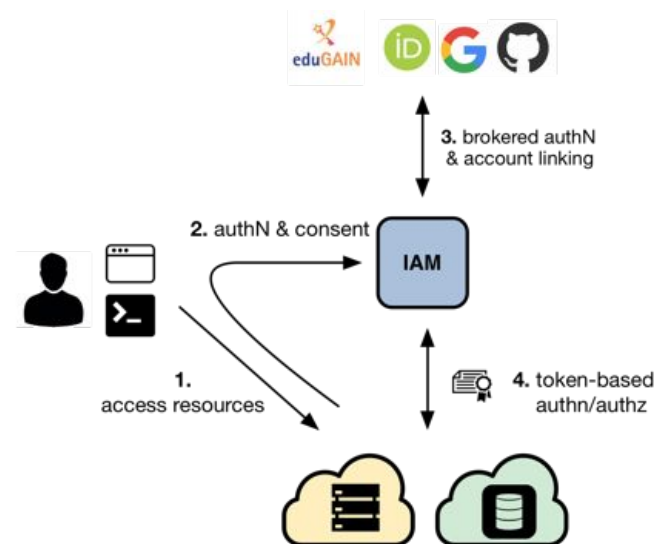
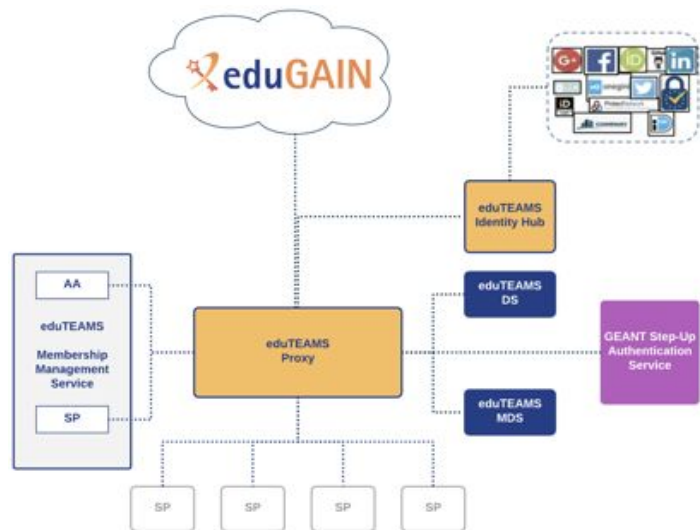
Consuming EOSC services & resources



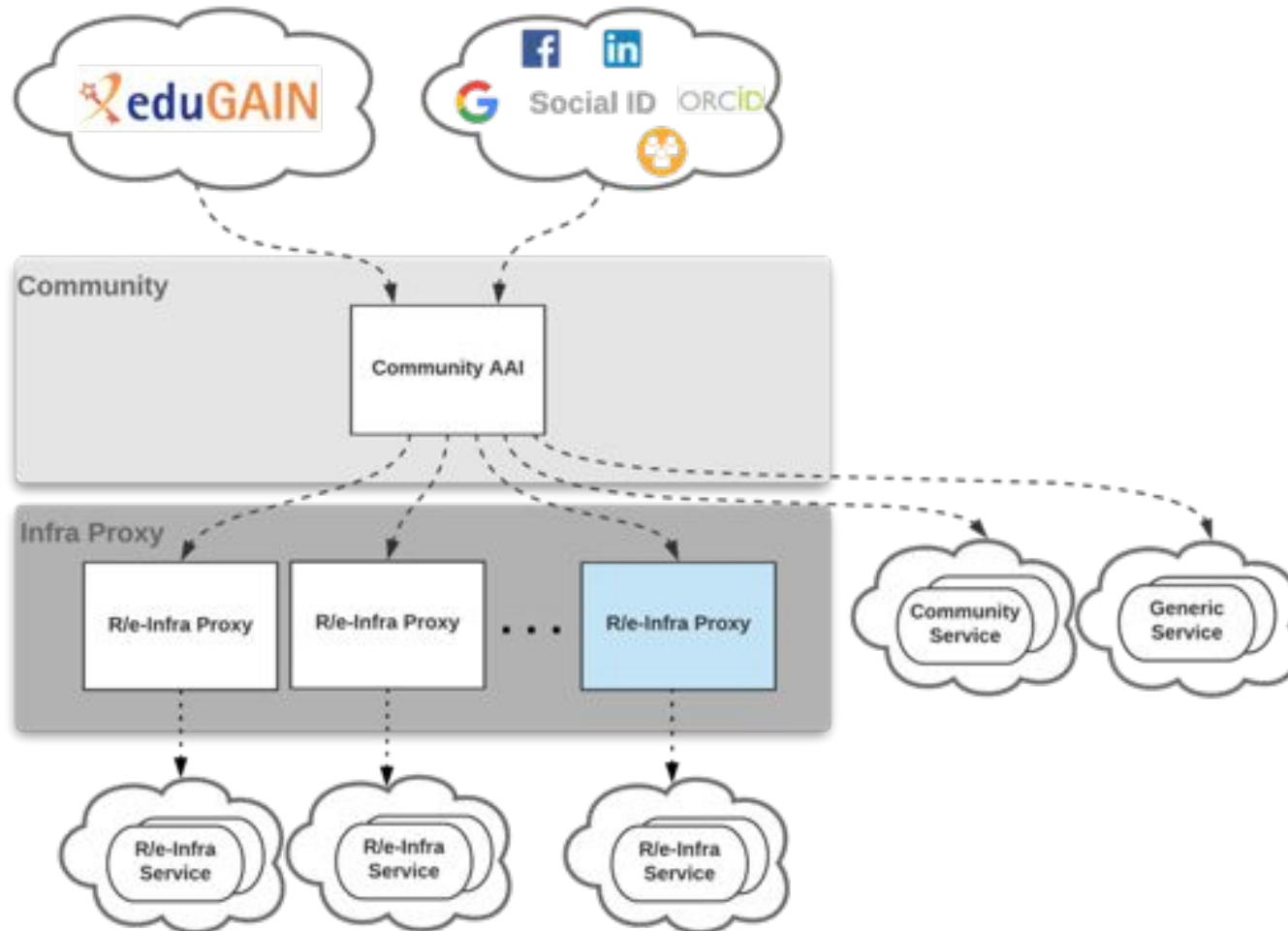
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- Different multi-tenant Community AAI service offerings, e.g.:

- B2ACCESS
- Check-in
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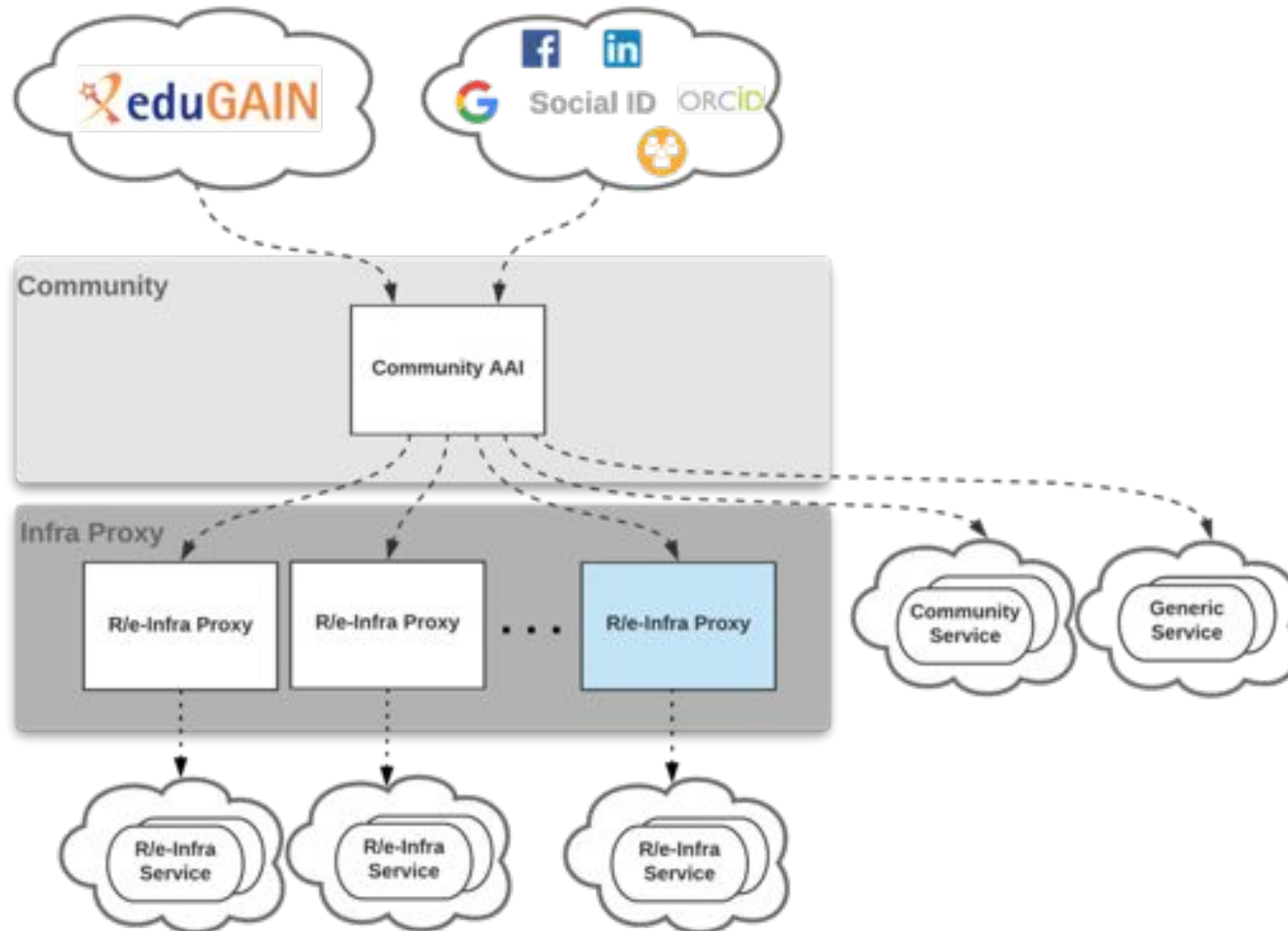


Providing services & resources through EOSC



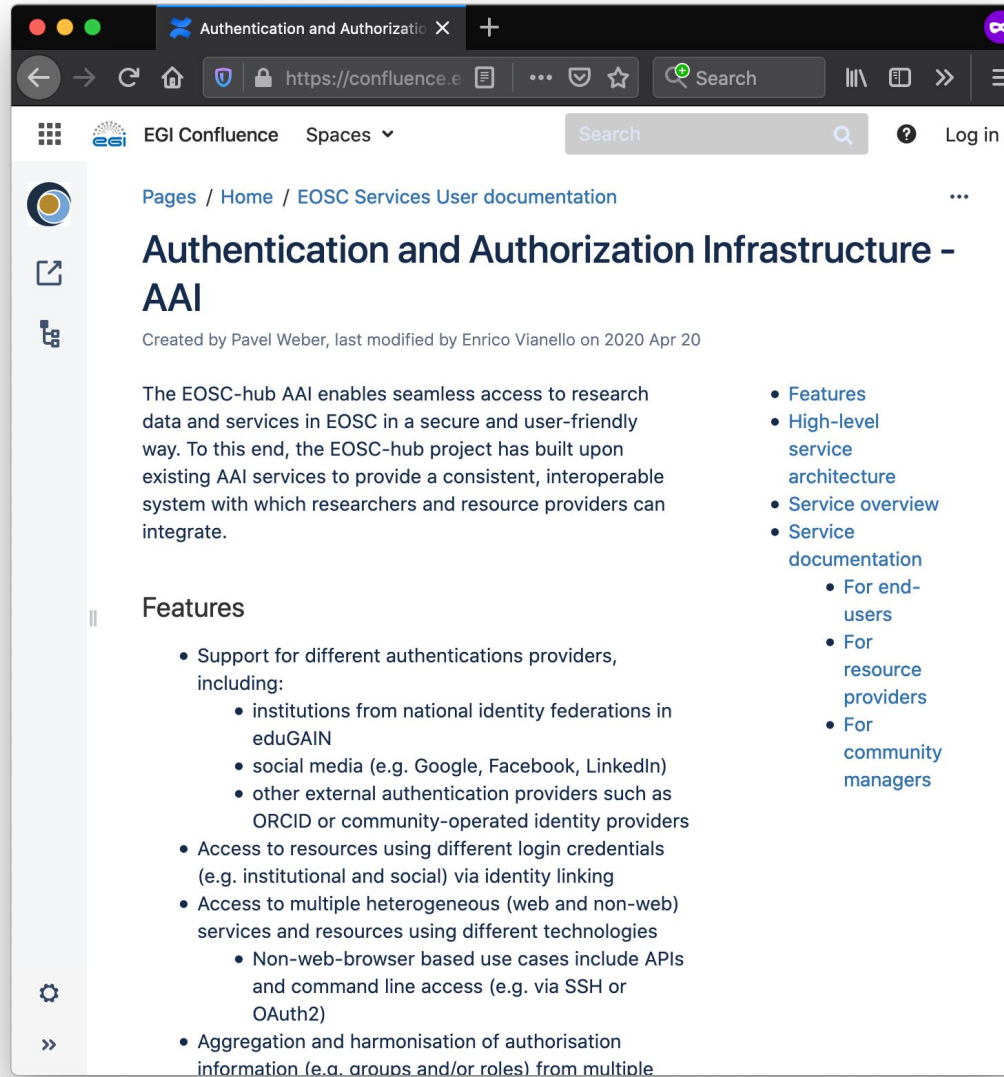
- For **infrastructures with an AARC BPA-compliant Infrastructure Proxy**:
 - They can connect their Infra Proxy to the Community AAI(s) they want to offer their resources

Providing services & resources through EOSC



- For **infrastructures without an AARC BPA-compliant Infrastructure Proxy:**
 - They can connect their services to any of the Infra Proxies in the Infra Proxy layer

- [Documentation](#)
- [Roadmap](#)



The screenshot shows a web browser window displaying a Confluence page. The browser's address bar shows the URL <https://confluence.ee>. The page title is "Authentication and Authorization Infrastructure - AAI". The page content includes a description of the EOSC-hub AAI system, a "Features" section with a bulleted list, and a right-hand sidebar with a "Table of Contents" for the page.

Pages / Home / EOSC Services User documentation

Authentication and Authorization Infrastructure - AAI

Created by Pavel Weber, last modified by Enrico Vianello on 2020 Apr 20

The EOSC-hub AAI enables seamless access to research data and services in EOSC in a secure and user-friendly way. To this end, the EOSC-hub project has built upon existing AAI services to provide a consistent, interoperable system with which researchers and resource providers can integrate.

Features

- Support for different authentications providers, including:
 - institutions from national identity federations in eduGAIN
 - social media (e.g. Google, Facebook, LinkedIn)
 - other external authentication providers such as ORCID or community-operated identity providers
- Access to resources using different login credentials (e.g. institutional and social) via identity linking
- Access to multiple heterogeneous (web and non-web) services and resources using different technologies
 - Non-web-browser based use cases include APIs and command line access (e.g. via SSH or OAuth2)
- Aggregation and harmonisation of authorisation information (e.g. groups and/or roles) from multiple

- Features
- High-level service architecture
- Service overview
- Service documentation
 - For end-users
 - For resource providers
 - For community managers

Thank you for your attention!

Questions?



EOOSC-hub

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