Karlsruhe Institute of Technology

Account Linking Service ALISE

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ALISE

Karlsruhe Institute of Technology

Account LInking SErvicE (ALISE)

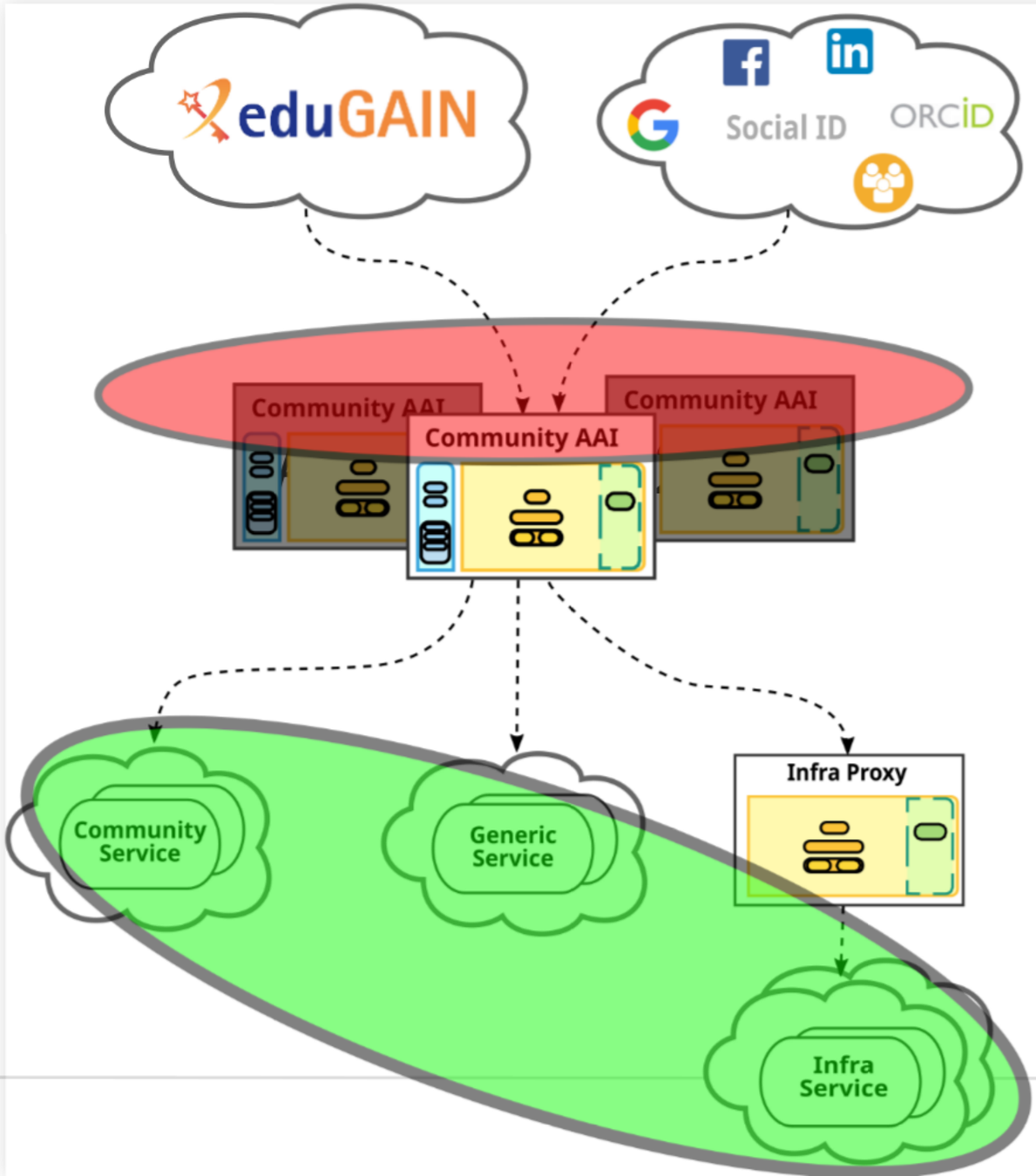
Account Linking Wonderland

Background

Different types of Account Linking

- Link federated identity to
  1. another federated identity
     - There is a logical relation between both identities
     - e.g. link an ORCID to your Home-ID
  2. a technical account
     - e.g. link Home-ID to unix account on an HPC Cluster

Where is ALISE linking accounts?



Technical Note

- This kind of linking is actually provisioning
- This kind of linking MIGHT happen automatically
- We mean: “Site-local account linking”

ALISE

Use Case

Example

- File on storage service:

```
-rw-r--r-- 1 marcus ant-researchers 210 Oct 4 09:19 /projects/ant-science/alise.py
```

- Access this file locally:

```
cat /projects/ant-science/alise.py
```

- Access this file via federated service:

```
curl https://hpc.example.org/projects/ant-science/alise.py -H "Authorization:
Bearer 'oidc-token egi'"
```

- This requieres correct and consistent mapping of
  - Federated users to local accounts
  - Entitlements / Groups / VOs to local groups

How does ALISE work?

- ALISE drives the transition
- For this to work, an existing local account is required
- ALISE web app offers two logins
  - First with techical computer centre account
  - Then with (multiple) federated accounts
- ALISE enabled tools use REST interface to obtain mappings
- ALISE may be self-hosted, or used as a service
  https://alise.data.kit.edu

Life demo (WEB)

- Account LInking SErvicE (ALISE)
  https://alise.data.kit.edu

Life demo (REST)

```
curl  https://alise.data.kit.edu/api/v1/target/vega-kc/mapping\
      /issuer/$(urlencode.py https%3A%2F%2Flogin.helmholtz.de%2Foauth2)\
      /user/$(urlencode.py 6c611e2a-2c1c-487f-9948-c058a36c8f0e)\
      ?apikey=bnginyourdreamsinyourdreamslxbmu | jq
```

Example output


```
{
  "internal": {
    "sub": "3c498039-1754-4f9d-b71c-5c13739e8875",
    "iss": "https://sso.sling.si:8443/auth/realms/SLING",
    "username": "marcush",
    "last_seen": -930016800,
    "display_name": "Marcus Hardt"
  },
  "external": [
    {
      "sub": "d7a53cbe3e966c53ac64fde7355956560282158ecac8f3d2c770b474862
      "iss": "https://aai-demo.egi.eu/auth/realms/egi",
      "last_seen": 13552005600,
      "display_name": "Marcus Hardt"
    },
    {
      "sub": "104223951181002749851",
      "iss": "https://accounts.google.com/",
      "last_seen": 13552005600,
      "display_name": "Marcus H"
```

API Key

Getting an apikey is simple:

```
curl  https://alise.data.kit.edu/api/v1/target/vega-kc/get_apikey \
      -H "Authorization: Bearer $(oidc-token egi)"
```

Timeline

Current state

- Suppported Computer Centres:
  - VEGA
  - KIT
  - KBFI
  - PSNC (self-hosted instance)
- Supported Identity Providers:
  - EGI-Checkin
  - Google
  - Helmholtz-ID
  - (it’s trivial to add more)
- Services making use of ALISE:
  - dCache

Future Work

- Include more sites
- Support LDAP
- Integrate with **`ssh-oidc`**
- Support **`entilement`** / group based mapping

Questions

- https://alise.data.kit.edu
- codebase git@codebase.helmholtz.cloud:m-team/tools/alise.git
  https://codebase.helmholtz.cloud/m-team/tools/alise
- github git@github.com:m-team-kit/alise.git
  https://github.com/m-team-kit/alise

Since we're at it

Account linking

(on the higher level)

- Should NOT be used for establishing a second login path
  - Deprovisioning WILL be your nightmare
  - Freshness of some attributes is critical
- Instead:
  - Use the second login only to “obtain additional attributes linked to the same user”
  - be creative!