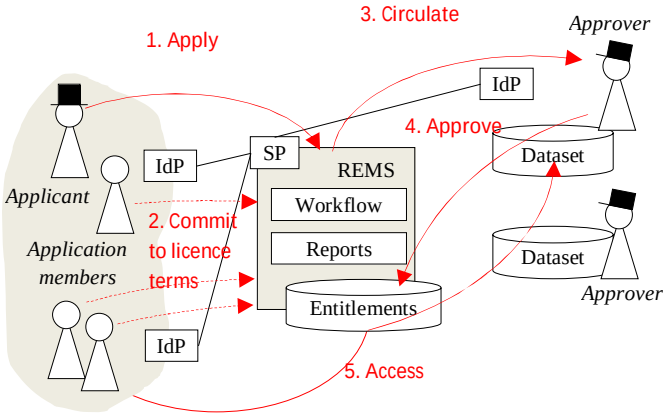
REMS – Managing Access to Research Datasets

REMS (Resource Entitlement Management System) is an open source tool developed by CSC – IT Center for Science for managing access rights to research datasets.

REMS Schema

The *Applicant* has identified the dataset(s) to which (s)he wants to apply for access. The applicant uses federated identity (IdP and SP in the figure) to authenticate to REMS, uploads his/her research plan to justify the data access application and provides a list of the research group members (*Application members)* to whom access is applied as well. The applicant clicks Submit (Arrow 1).



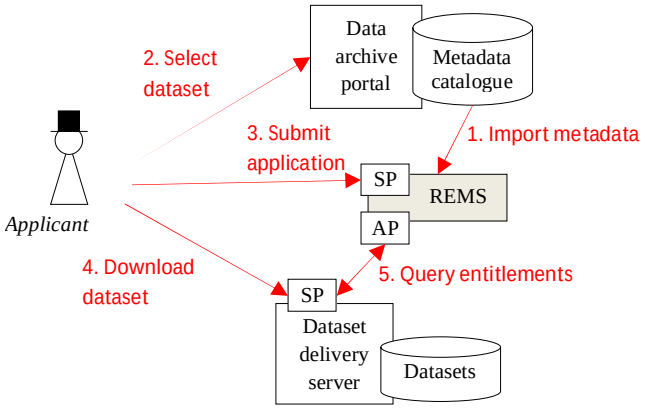
Each *application member* receives e-mail that (s)he needs to log in to REMS (using federated identity) and commit to the dataset's licence terms (Arrow 2). REMS circulates the data access application to the *approver* (the individual or body that screens the applications) of the dataset who receives an e-mail notification of the application (Arrow 3). The *approver* approves or rejects the application or returns it for amendments (Arrow 4). If the application is approved, the *application members* receive an entitlement and instructions to access (for instance, download to their local environment or process in a computing server) the dataset (Arrow 5).

Features

- Supports federated identity (SAML 2.0 WebSSO)
- Supports several datasets with different *approvers*
- Flexible and configurable application form and circulation workflow
- Reports on applications and access rights

Integration to a Data Archive

REMS imports datasets' metadata and generates application forms and workflows based on it (Arrow 1). The *applicant* discovers the dataset(s) in the data archive's portal and clicks Apply button there (Arrow 2). In REMS, the *applicant* fills in and submits the data access application (Arrow 3) which is processed by the *approver*. To download the dataset (Arrow 4), the *applicant* accesses the data archive's dataset delivery server which makes a query (Arrow 5) to REMS to find out what datasets this user is authorized to download.



Related REMS interfaces

- REST API (XML/JSON) for importing datasets' metadata (Arrow 1)
- Well-known URL for triggering a data access application from an external web site (Arrow 2)
- SAML Attribute Query (on SOAP) for enquiring a users' access rights (Arrow 5)

Disciplines Support

REMS is a generic, discipline independent tool. So far it has been used for

- Bioinformatics and biobanking
- Language research data
- Social science data

REMS has been developed with the support of Academy of Finland for the ELIXIR research infrastructure.

More Information

http://www.csc.fi/rems

18.11.2013