

General Authentication efforts at ELIXIR-ES

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The INB/ELIXIR-ES Identity Provider Server offers the OpenID Connect 1.0 based Single Sign On solution for ELIXIR-ES affiliated institutions that lack an institutional traversal Identity Provider. It is also used as the authentication/authorization server for infrastructures such as the OpenEBench platform and the Multiscale Complex Genomics (MUG) VRE.

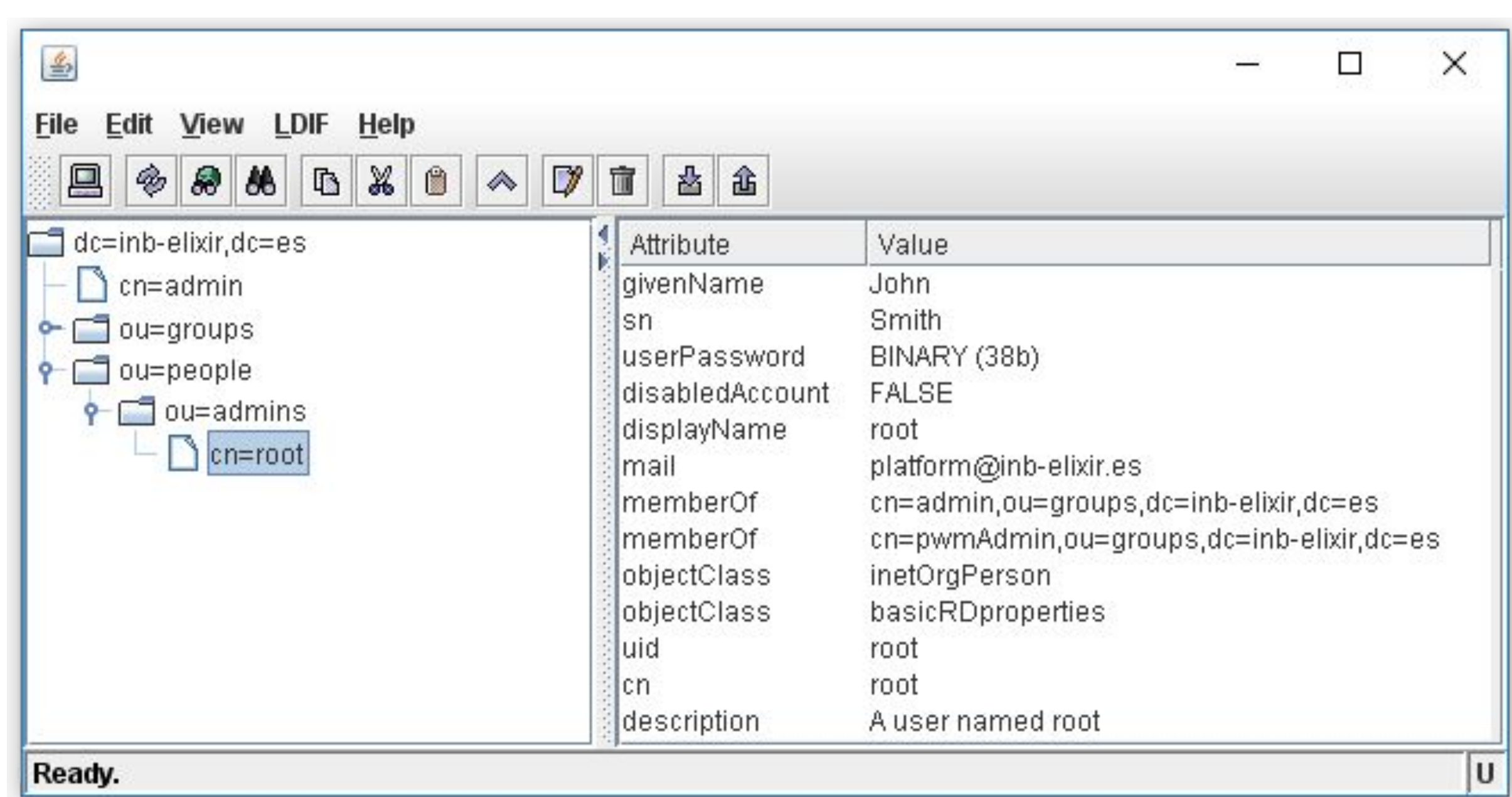
INB/ELIXIR-ES IdP Server

KEYCLOAK

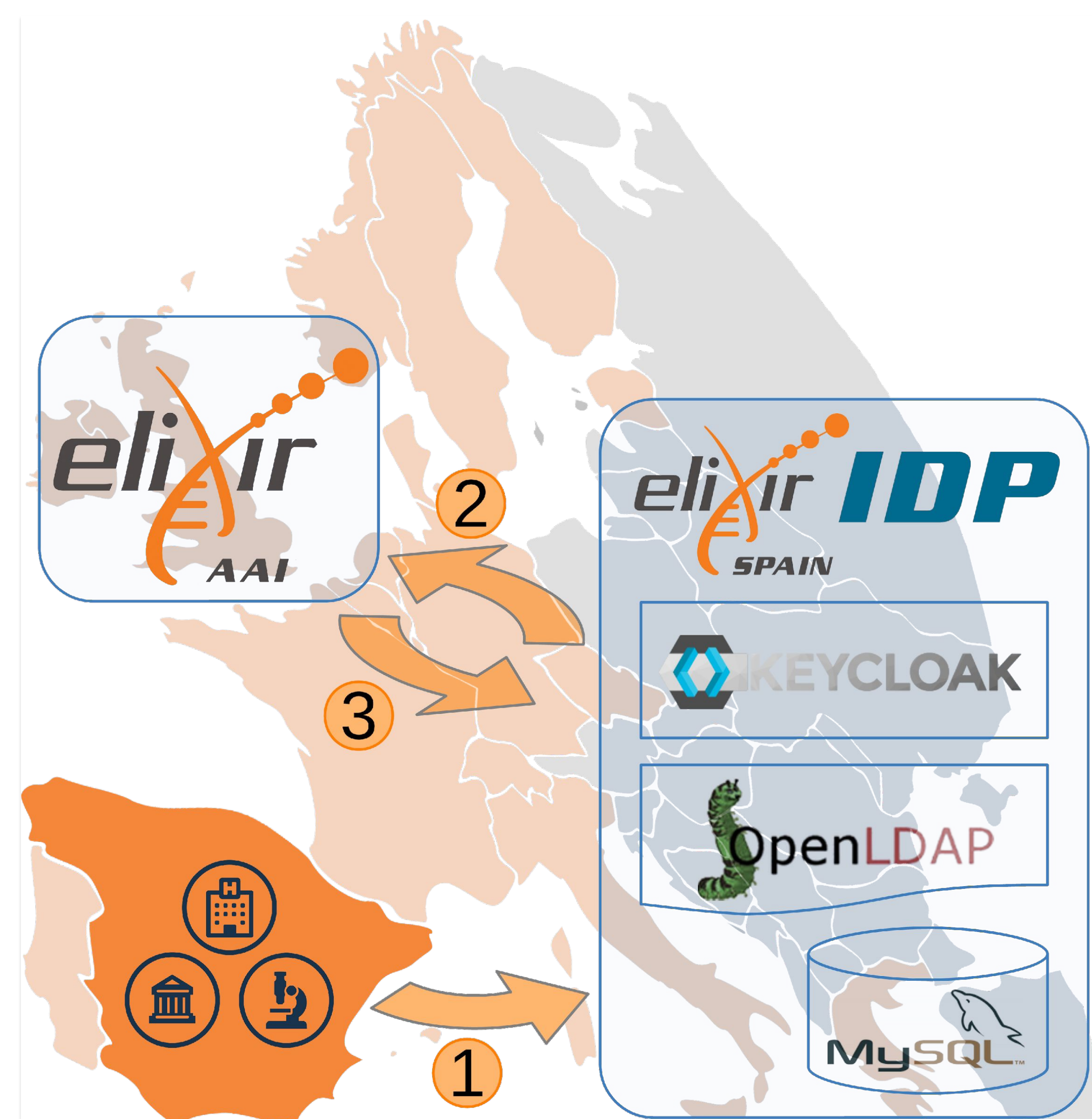
INB/ELIXIR-ES uses Keycloak 3.3 server as its Single Sign On and Identity Management platform.

INB/ELIXIR-ES IdP LDAP directory structure

Used LDAP schemas and directory structure is based on previous development for the RD-Connect Genomics platform. The supported set of object classes, roles and attributes includes **inetOrgPerson** and **groupOfNames** schema objects, which eases its integration into federating technologies, like SAML or OpenID Connect. Moreover, LDAP standard user management tools can be used by platform administrators.



LDAP Browser/Editor example



INB/ELIXIR-ES Authentication/Authorization workflow:

1. Client authenticates to the correspondent realm
2. Realm proxies the authentication to the ELIXIR AAI
3. ELIXIR AAI uses INB/ELIXIR-ES IdP to authenticate the client.

INB/ELIXIR-ES Authentication/Authorization Server

OpenEBench

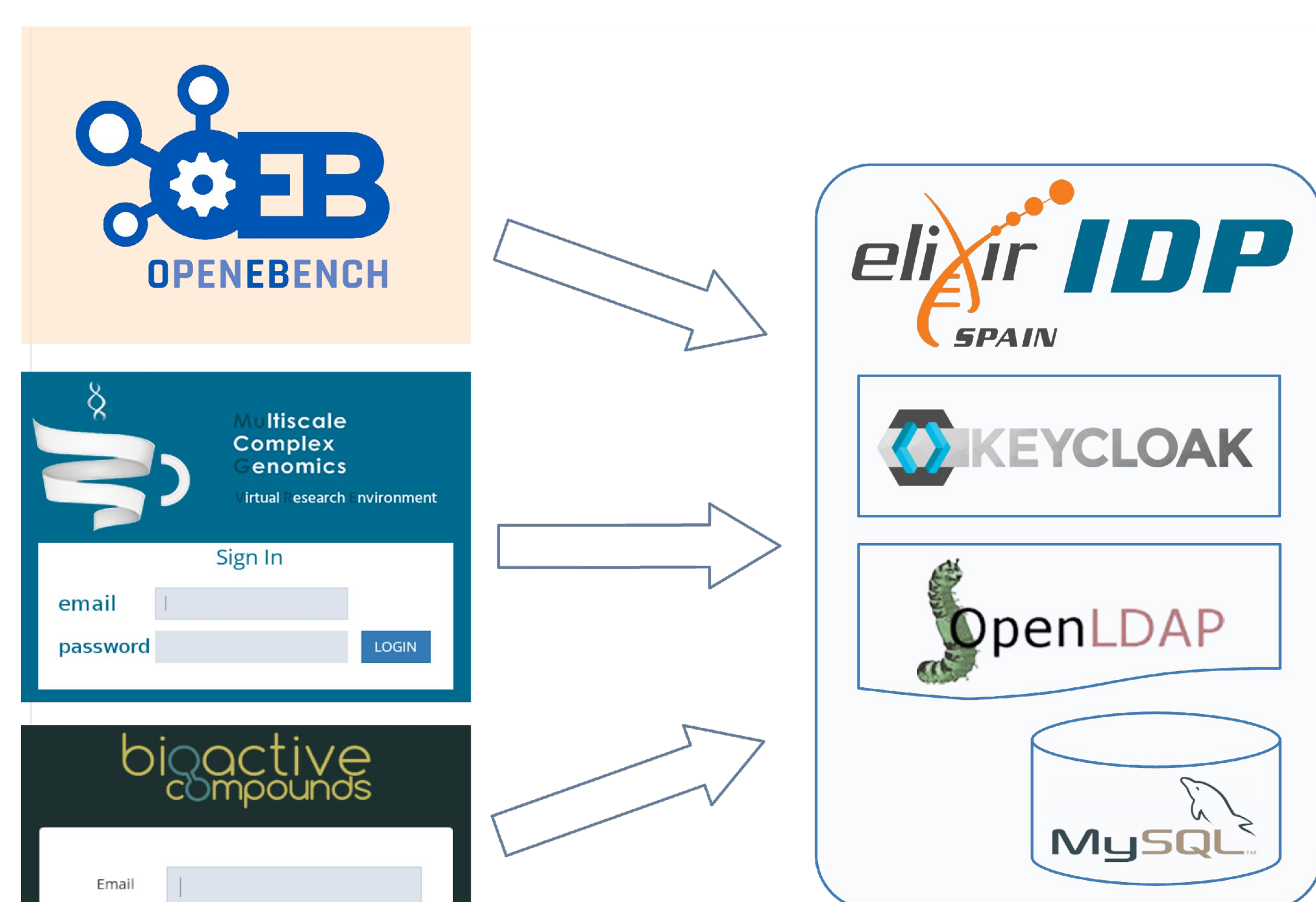
OpenEBench and Tools Monitoring REST APIs are protected via INB/ELIXIR-ES Identity Server.

Multiscale Complex Genomics (MUG)

MuG Virtual Research Environment uses INB/ELIXIR-ES Identity Server for the authentication. INB/ELIXIR-ES IdP implements OpenID Connect 1.0 which allows for the Web access a standard user and password authentication based on the code authorization flow of OAuth2, and a token based authentication for the MuG REST services such as Data Management APIs based on the implicit OAuth2 flow. VRE displays the authentication tokens in use and allow to refresh them so that the user is able to authorize himself to the publicly available DMP services via REST.

BioActive Compounds Platform

Bioactive Compounds is a comprehensive platform aimed to generate bioactive conformers and to predict the activity of modelled compounds, using a powerful multilevel strategy that combines low-level (LL) method for sampling the conformational minima and high-level (HL) ab-initio calculations for estimating their relative stability.



INB/ELIXIR-ES Authentication/Authorization usecases:

1. OpenEBench and Tools Monitoring REST APIs
2. Multiscale Complex Genomics (MUG) VRE security
3. BioActive Compounds Platform security

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