

Seafile with SAML federation pilot

Introduction

Seafile is a cloud storage system with file encryption, group sharing, synchronization etc. available both in open source Community and paid Pro editions. The software has potential to enable research communities secure access to potentially unlimited commercial storage resources leveraging federated authentication and authorisation. It is possible mainly because of the following features:

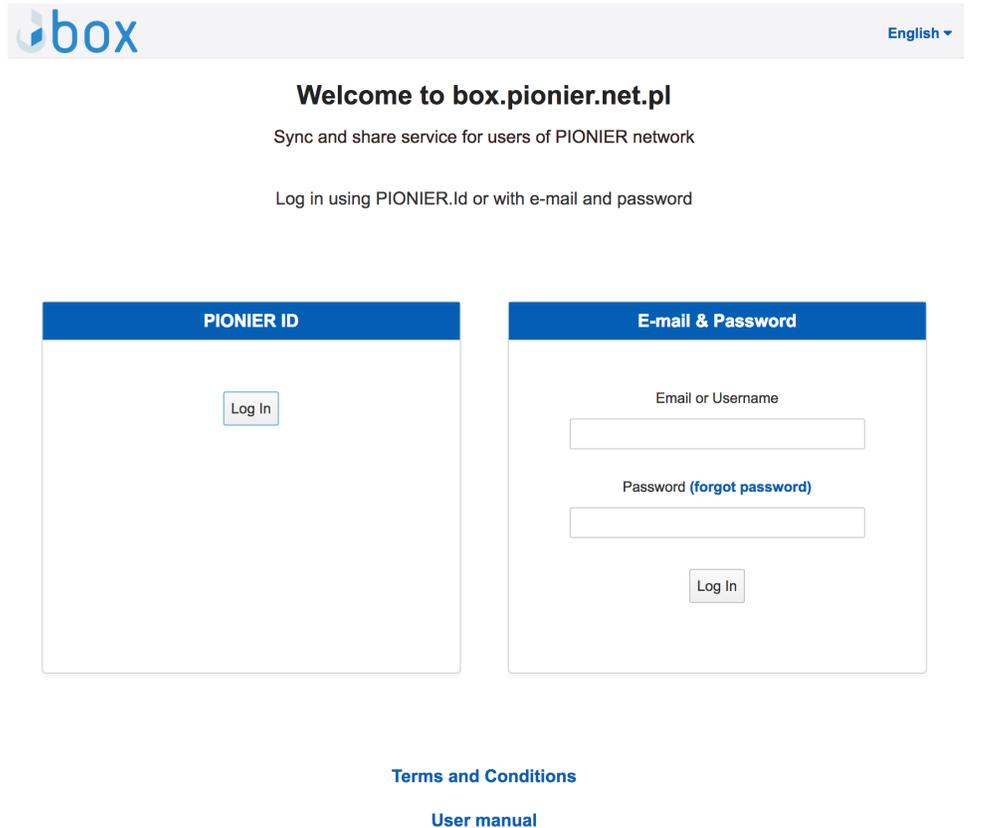
- Seafile is integrated with Shibboleth SP, so authentication against remote IdP may be configured.
- Seafile Pro supports a number of storage backends including Amazon S3, Open Stack Swift and Ceph and these are storage interfaces used by many commercial cloud providers.
- Seafile supports user side data encryption, so data privacy may be preserved even if the data is stored at untrusty third parties.

Additionally, the software provides some features from the point of view of access to resources:

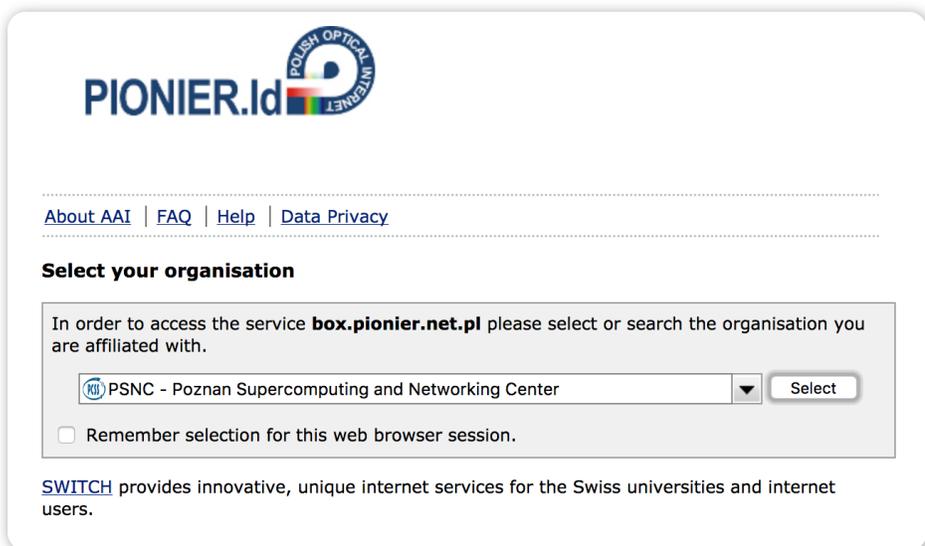
- Java client allows for non web access and local storage synchronisation.
- Collabora (LibreOffice) cloud suit integration supports collaborative work on documents online (Pro edition).

The missing element to enable federated access to a SeaFile service is discovery service as the software as such is designed to work with single IdP. This pilot aims in testing federated access to Seafile service using community WAYF service as a proxy to multiple SAML IdPs. The approach is to configure existing PIONIER.Id WAYF service (<https://aai.pionier.net.pl/WAYF>) as SAML IdP for Seafile Shibboleth authentication.

Workflow

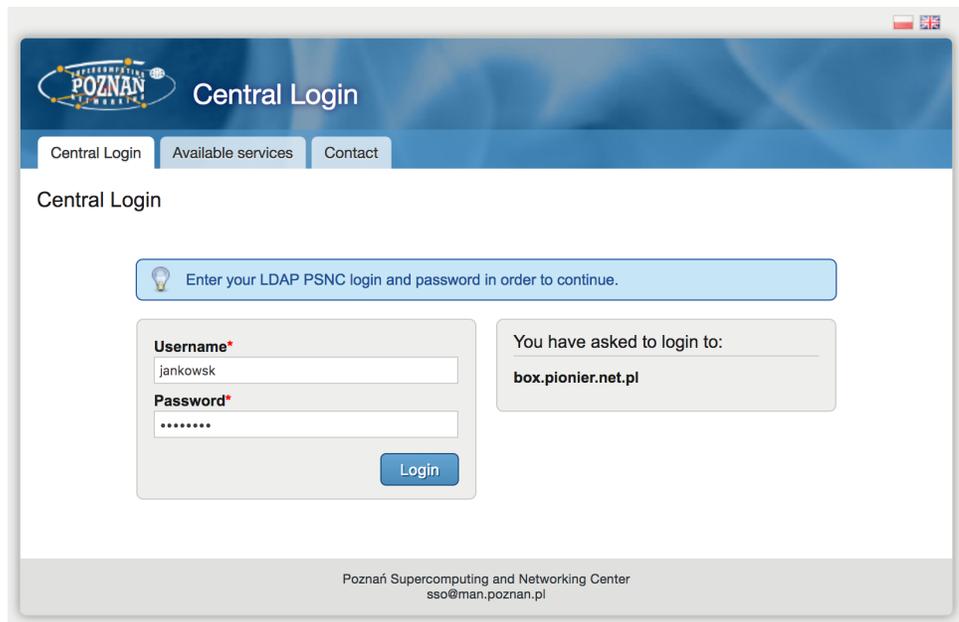
<p>1. Access the service at https://box.pionier.net.pl/.</p> <p>Push Log In button in PIONIER ID table.</p>	
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2. The browser redirects to **PIONIER.R.id** WAYF service.
Select your IdP.



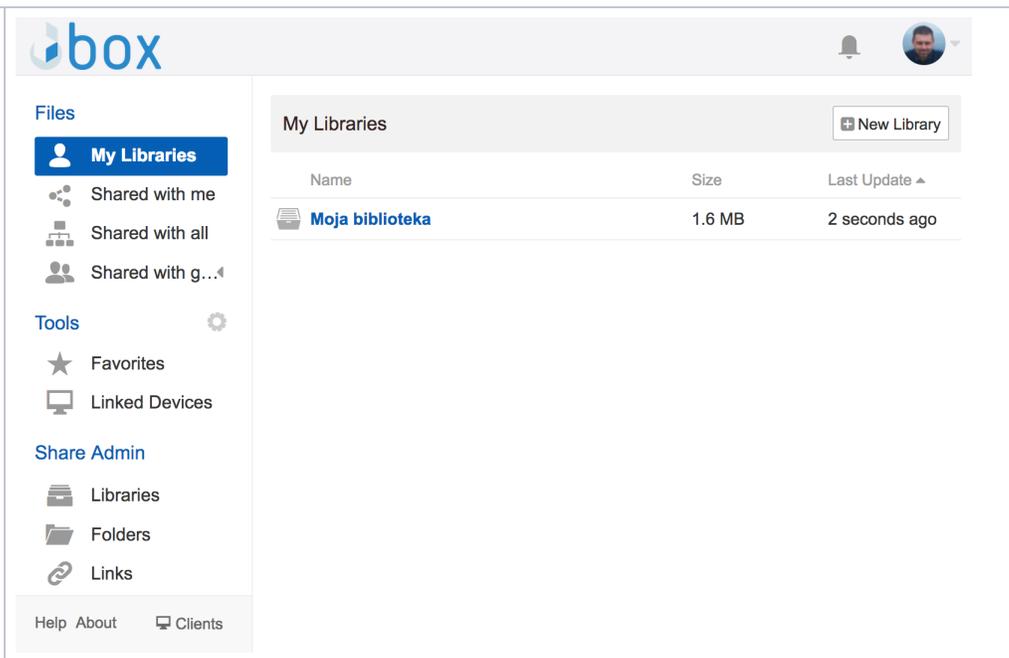
The screenshot shows the PIONIER.Id website interface. At the top left is the logo for PIONIER.Id, which includes the text "POLISH OPTICAL INTERNET" around a circular graphic. Below the logo are navigation links: "About AAI", "FAQ", "Help", and "Data Privacy". The main heading is "Select your organisation". Below this, a text box explains: "In order to access the service **box.pionier.net.pl** please select or search the organisation you are affiliated with." There is a dropdown menu currently showing "PSNC - Poznan Supercomputing and Networking Center" and a "Select" button. A checkbox below the dropdown is labeled "Remember selection for this web browser session." At the bottom of the page, there is a "SWITCH" logo and text: "SWITCH provides innovative, unique internet services for the Swiss universities and internet users."

3. The browser redirects to home IdP
Login using home IdP credentials.



The screenshot shows the "Central Login" page of the Poznań Supercomputing and Networking Center. The page has a blue header with the "Central Login" title and navigation tabs for "Central Login", "Available services", and "Contact". A light blue message box says "Enter your LDAP PSNC login and password in order to continue." Below this is a login form with fields for "Username*" (containing "jankowsk") and "Password*" (masked with "*****"), and a "Login" button. To the right of the form, a box indicates "You have asked to login to: box.pionier.net.pl". The footer contains the text "Poznań Supercomputing and Networking Center" and the email "sso@man.poznan.pl".

4. The browser redirects back to the required service.



The screenshot shows the Seafiler web interface. The top navigation bar includes the 'box' logo, a notification bell, and a user profile icon. The left sidebar is divided into sections: 'Files' (with 'My Libraries' selected), 'Tools' (Favorites, Linked Devices), and 'Share Admin' (Libraries, Folders, Links). At the bottom of the sidebar are links for 'Help', 'About', and 'Clients'. The main content area is titled 'My Libraries' and features a 'New Library' button. Below this is a table with the following data:

Name	Size	Last Update
 Moja biblioteka	1.6 MB	2 seconds ago

Status

The professional version of the Seafiler software has been deployed and the federated login through the PIONIER.id federation is now supported by the service.

Service

The service is available at: <https://box.pionier.net.pl/>

Resources

Seafiler manual on Shibboleth authentication: https://manual.seafiler.com/deploy/shibboleth_config.html

Shibboleth SP documentation: <https://shibboleth.net/products/service-provider.html>

WAYF documentation: <https://www.switch.ch/aai/support/tools/wayf/>