

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:

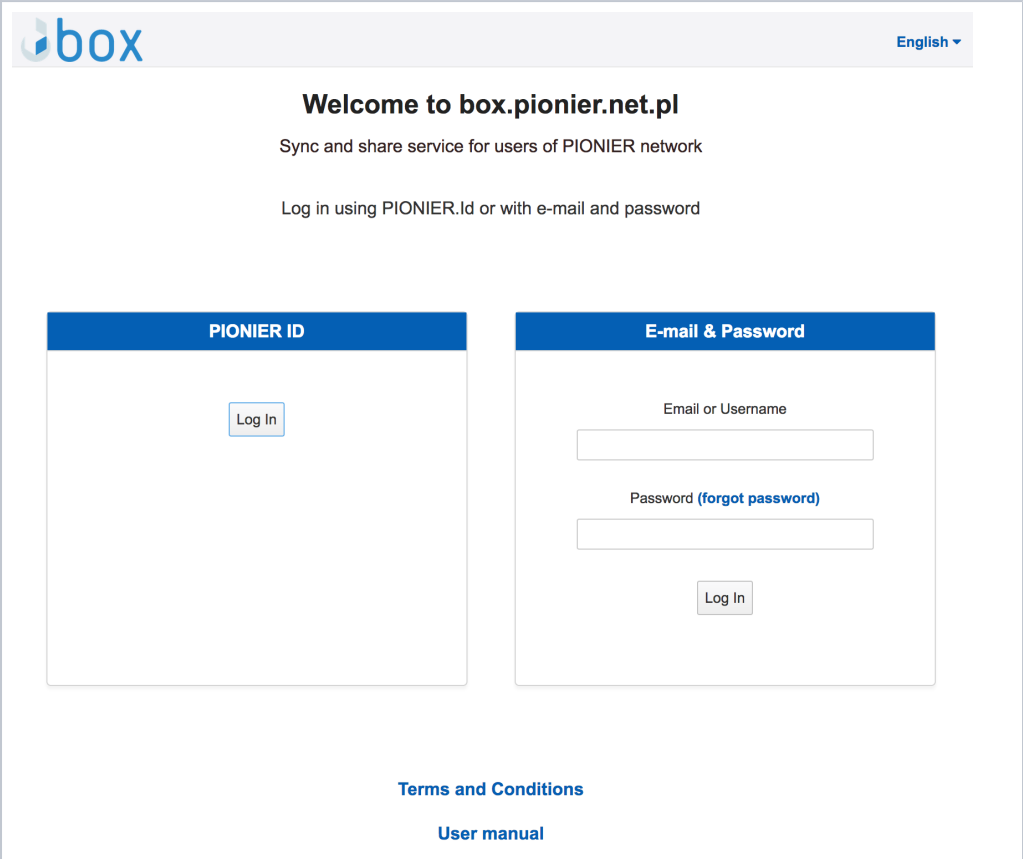
- Seafile is integrated with Shibboleth SP, so authentication against remote IdP may be configured.
- Seafile Pro supports a number of storage backends including Amazon S3, Open Stack Swift and Ceph and these are storage interfaces used by many commercial cloud providers.
- Seafile supports user side 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

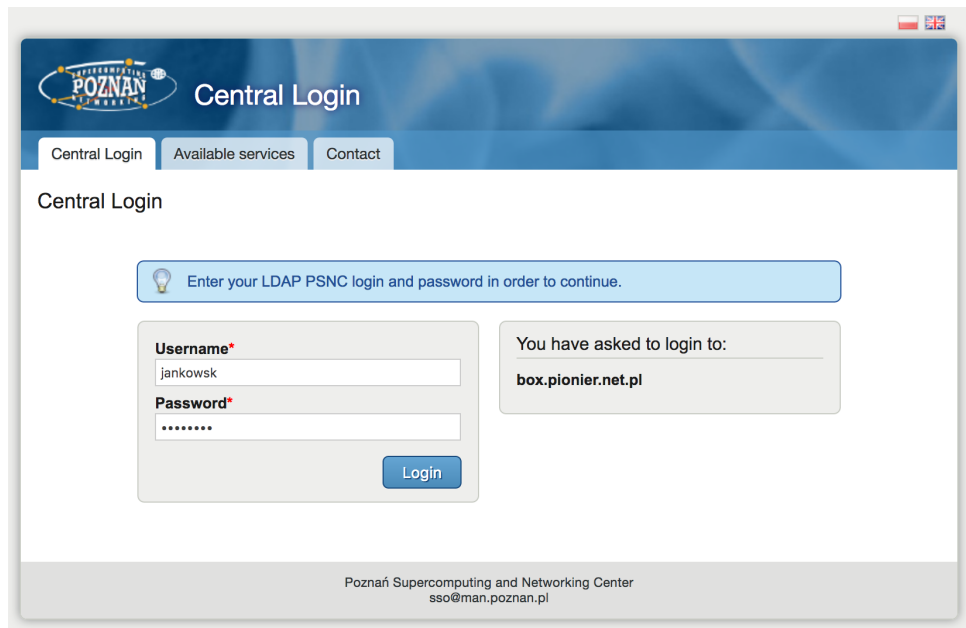
<p>1. Access the service at https://box.pionier.net.pl/.</p> <p>Push Log In button in PIONIER ID table.</p>	
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2. The browser redirects to **PIONIER**
R.id WAYF service.
Select your IdP.



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 stylized 'P' with a rainbow bar. Below the logo are navigation links: [About AAI](#) | [FAQ](#) | [Help](#) | [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 with "PSNC - Poznan Supercomputing and Networking Center" selected and a "Select" button. A checkbox labeled "Remember selection for this web browser session." is also present. At the bottom, a note states: "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. The header features the "UNIVERSYTET POZNAŃ" logo and the text "Central Login". Navigation tabs include "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, 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. At the top left is the 'box' logo. On the right, there are notification and user profile icons. The main content area is divided into a left sidebar and a main panel. The sidebar has sections for 'Files', 'Tools', and 'Share Admin'. The 'Files' section includes 'My Libraries', 'Shared with me', 'Shared with all', and 'Shared with g...'. The 'Tools' section includes 'Favorites' and 'Linked Devices'. The 'Share Admin' section includes 'Libraries', 'Folders', and 'Links'. At the bottom of the sidebar are 'Help', 'About', and 'Clients' links. The main panel shows 'My Libraries' with a 'New Library' button. Below this is a table with columns 'Name', 'Size', and 'Last Update'. One library is listed: 'Moja biblioteka' with a size of '1.6 MB' and 'Last Update' of '2 seconds ago'.

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/>