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## Overview

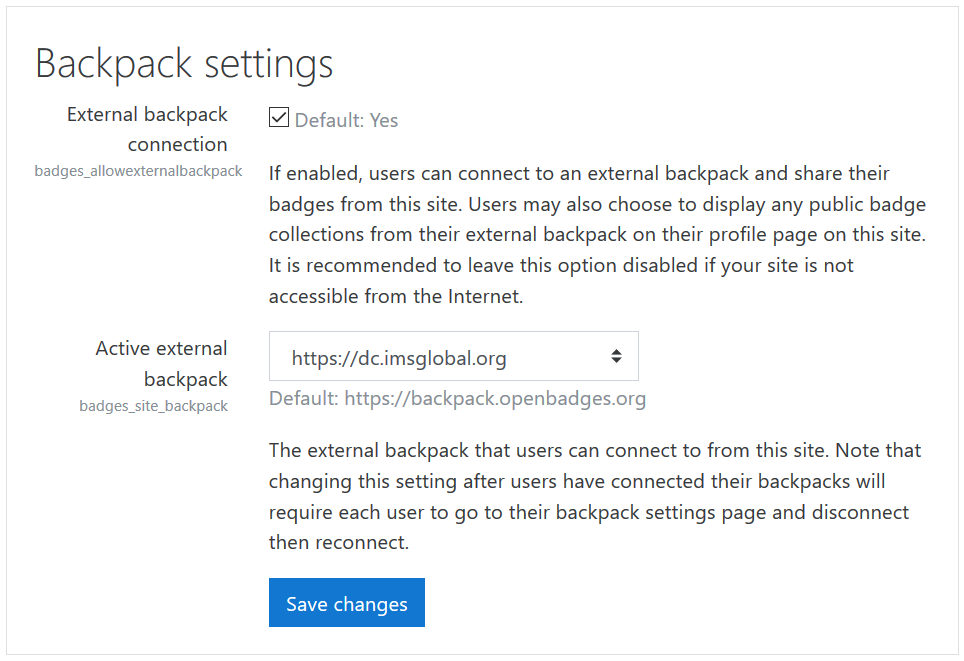
This section of the document will explain how to get started with a relying party application for Badge Connect. Moodle application needs to go through several common processes before the workflows for their specific needs diverge. Here we will explain these steps, including:

1. Backpack (**Host**) Selection: Backpack settings
2. Authorization server: Create a new OAuth2 service
3. Create & manage the site backpack
4. Access Open Badges OpenAPI Assertions
5. Access Open Badges OpenAPI Profile

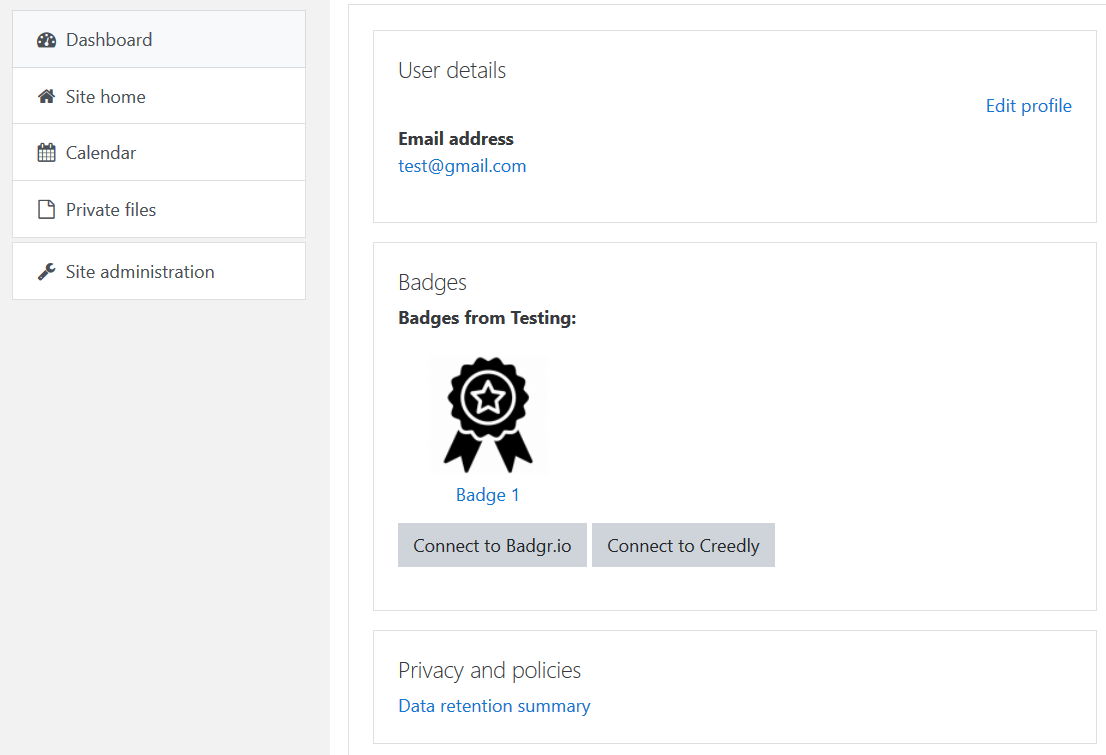
## Design Specification for Backpack settings

In Moodle 3.8 onwards, admin accesses the external backpack service page and manually set up the service provider data, in order to get the client\_id, client\_secret,..

Go to *Site administration > Badges > Backpack settings*



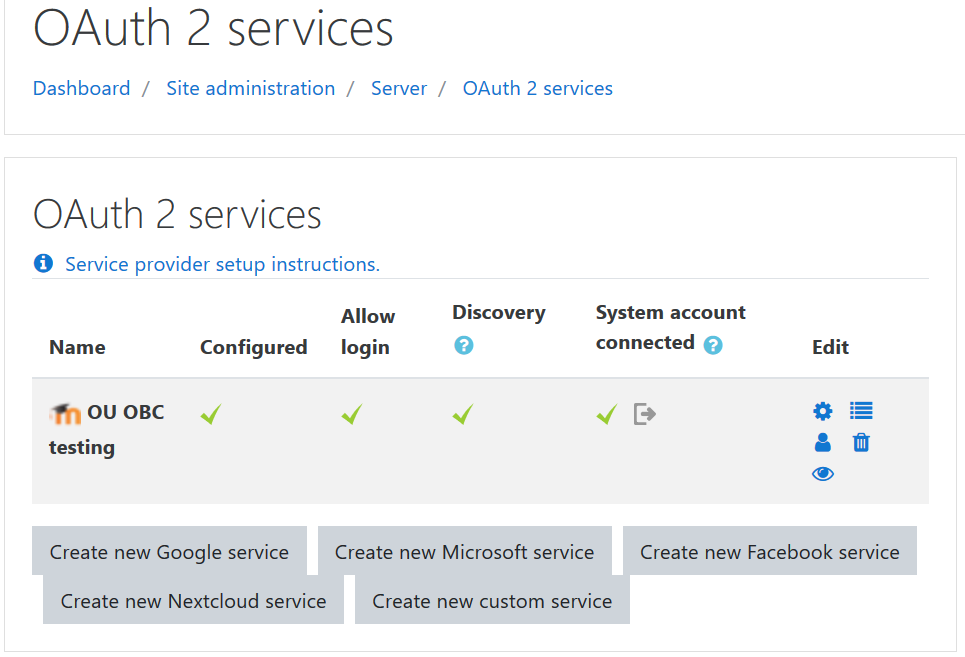
*Figure 1 – Badges 2.1 settings*

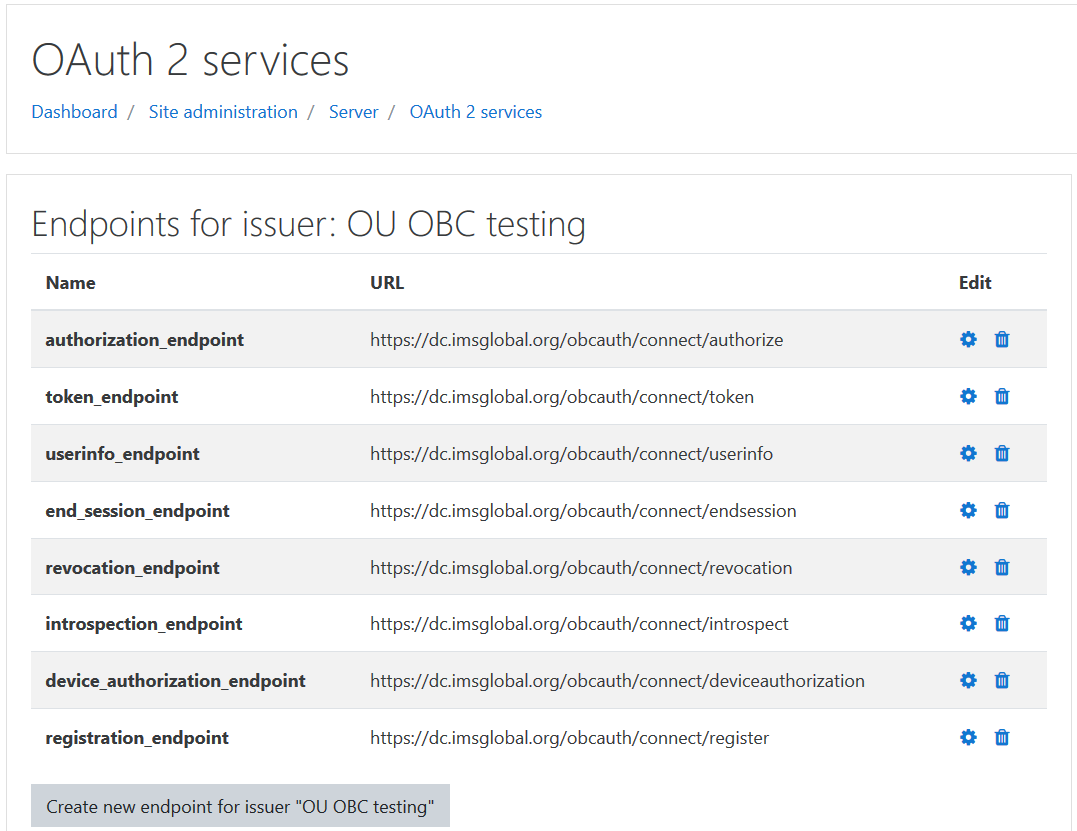
A user log-in in Moodle, they will see the screen to connect their account to this new OBv2.1 backpack. The oAuth2 authorization screen will be displayed (same as happens, for instance, when a user log-in using Google account in Moodle the very first time). If the user authorises it, they should be able to get/send their badges using the GET/POST assertions methods defined by the specification. 

*Figure 2 – Backpack connection*

## Create a new OAuth2 service

The admin goes to "Site administration / Server / OAuth 2 services" and "Create new custom service" (maybe a button for "OB providers" can be added here, instead of using the generic one). For filling up this form, he will need the information got on the previous step





## Create & manage the site backpack

The admin should be able to create a new backpack (from "Site administration / Badges / Manage backpacks"). It has to be linked to the previous oAuth2 service.

The admin should set the new backpack as the default from "Site administration / Badges / Backpack settings". In the future, users will be able to define their preferred backpack (but this will be done in MDL-65959).

Note <https://tracker.moodle.org/browse/MDL-65959> is in development progress

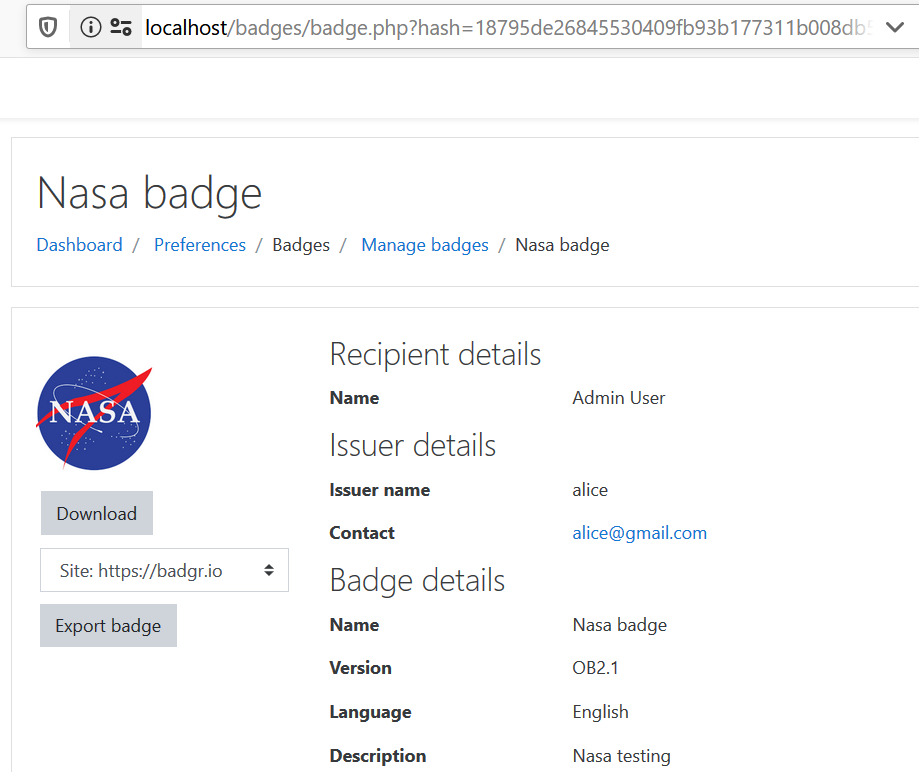
## Design Specification for Open Badges Assertions

* The learner makes a call to the *POST /assertions* endpoint to add the awarded badge to the user’s backpack. The backpack responds with a successful result.
* The learner makes a call to the GET */assertions* endpoint to read the badges in a user’s backpack. The backpack responds with a successful result.
* The Moodle application may now push badges to the user’s backpack at any time.

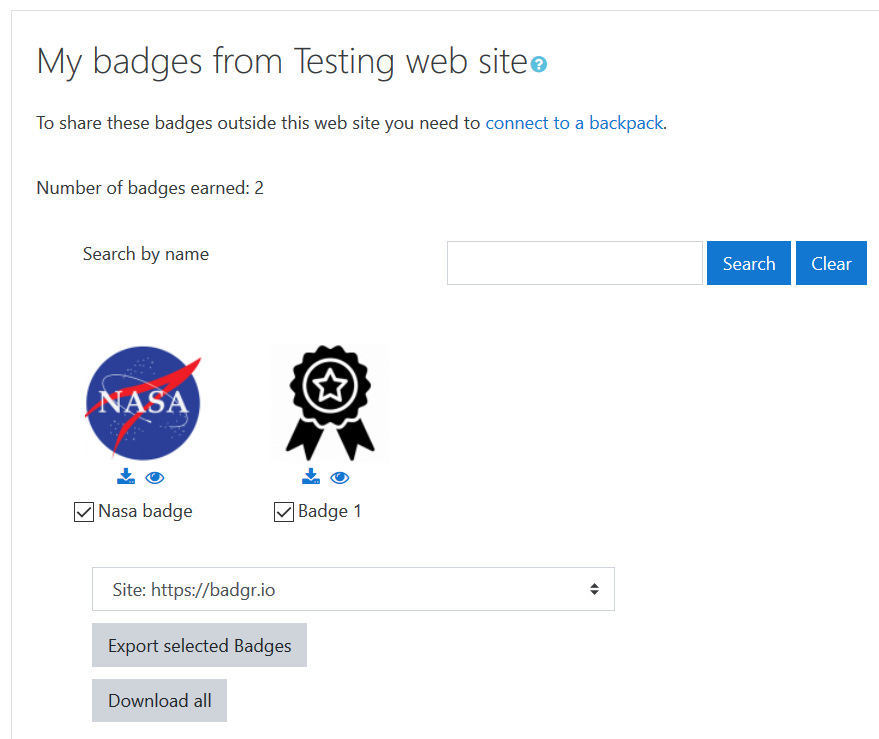
APIs Endpoint

<https://dc.imsglobal.org/obchost/swagger/index.html>

Screen to export a bage



Screen to export multiple-badges



## Design Specification for Open Badges Profile

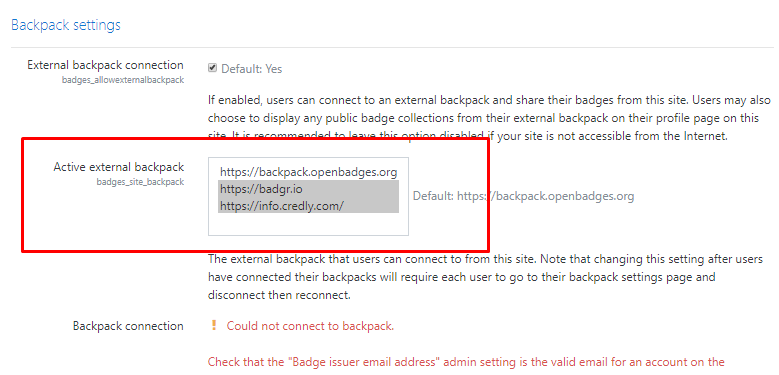
The Profile defined by OpenBadges is not for the user earning the badge... It's for the issuer: <https://www.imsglobal.org/sites/default/files/Badges/OBv2p0Final/index.html#Profile> . In that case, changes done in [MDL-65456](https://tracker.moodle.org/browse/MDL-65456) might affect this behaviour (so we should be aware of how this issue evolves).

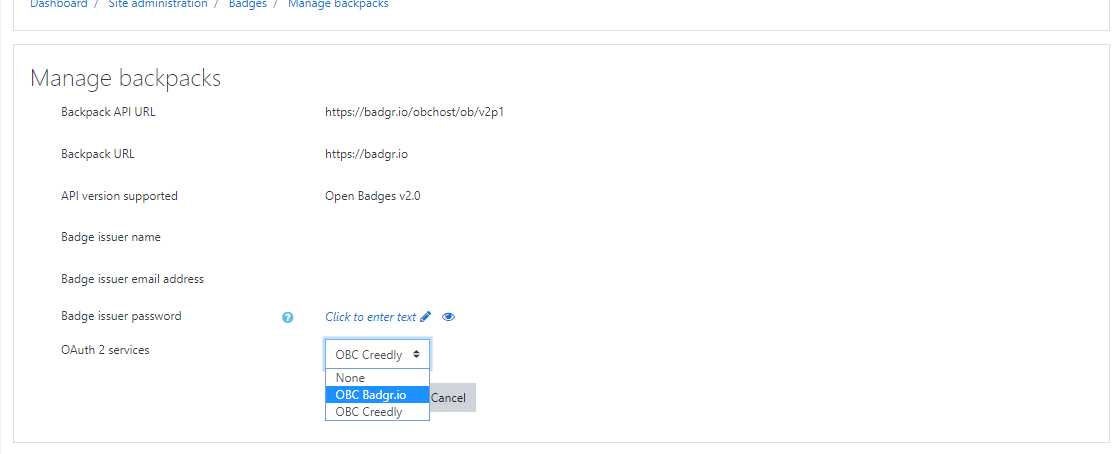
* The learner application makes a call to the *POST /profile* endpoint to add their profile to the user’s backpack. The backpack responds with a successful result.
* The learner makes a call to the GET */profile* endpoint to read the badges in a user’s backpack. The backpack responds with a successful result.
* The Moodle application may now push badges to the user’s backpack at any time.

APIs Endpoint

<https://dc.imsglobal.org/obchost/swagger/index.html>

## Design for active multiple external backpack

Admin is able to alter the field ‘Active external backpack’ to multiple selection, then user will be able connect to more than one backpack. Behind, the OAuth2 services will be assigned to each backpack for required authentication.



*Figure 3 – Active multiple external backpack.*