
Mobility Educational SoS

Configuration

1 - Configure at least two instances of Basic Educational SoS

2 - The administrative offices instances should install the `REST_API` plugin:

- The `REST_API` plugin is available in our repository: https://github.com/edufysos/REST_API
 - This version was modified from the original one available at https://gitlab.com/francoisjacquet/REST_API/
 - Copy the `REST_API` folder and its contents inside the `plugins/` folder of RosarioSIS

Configuration

2 - The administrative offices instances should install the `REST_API` plugin:

- In RosarioSIS, go to School -> Configuration -> Plugins and click "Activate" the `REST_API` plugin:



Configuration

[Configuration](#) | [Modules](#) | [Plugins](#)

3 Plugins were found.



	Title	Activated	Configuration
- Deactivate	Moodle	✓	Configuration
+ Activate	Mobility	✗	
+ Activate	REST API	✗	

- Edit `config.inc.php` file, adding the following line (change the passphrase):

```
◦ define( 'ROSARIO_REST_API_SECRET', 'thisIsMyPassphraseChangeMe' );
```

Configuration

2 - The administrative offices instances should install the `REST_API` plugin:

- To allow other partner universities connect to this API, we should generate a User Token:
 - Create an account at Auth0
(<https://auth0.com/>)
 - Log into your Auth0 account and create an API, informing a name (any) and the identifier.
 - The identifier should be the API endpoint URL
(`<url of Partner University instance>/plugins/REST_API/client.php`)
 - Go to API Settings -> Test. Copy the "access_token"

New API

Name

APIRosarioSevilla

A friendly name for the API.

Identifier

http://129.213.75.60/rosariosev/plugins/REST_API/client.php

A logical identifier for this API. We recommend using a URL but note that this doesn't have to be a publicly available URL, Auth0 will not call your API at all. **This field cannot be modified.**

Signing Algorithm

RS256

Algorithm to sign the tokens with. When selecting RS256 the token will be signed with Auth0's private key.

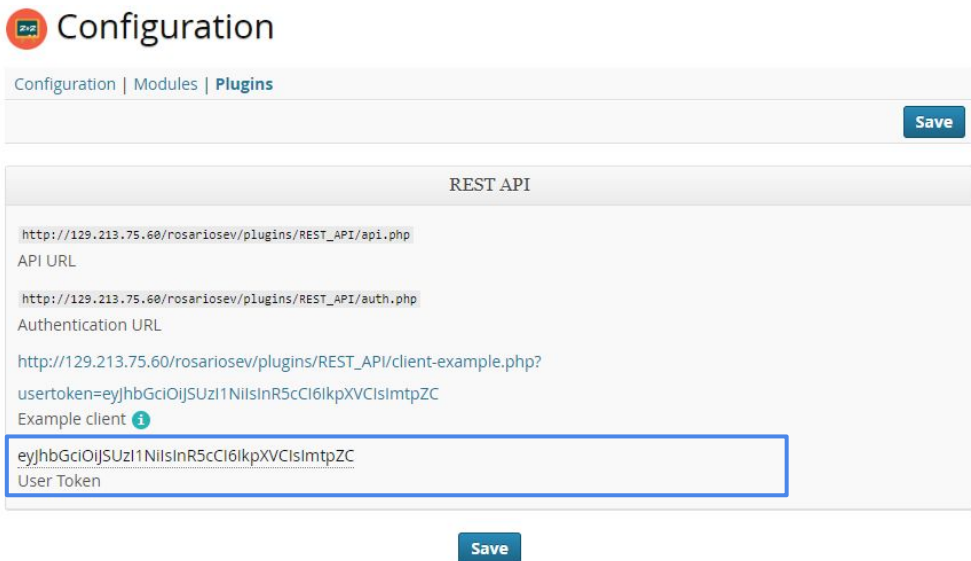
CREATE

CANCEL

Configuration

2 - The administrative offices instances should install the REST_API plugin:

- In RosarioSIS, go to School -> Configuration -> Plugins and click "Configuration" in the REST_API plugin
- Inform the "access_token" in the field User Token



Configuration

Configuration | Modules | **Plugins**

REST API

API URL
`http://129.213.75.60/rosariosev/plugins/REST_API/api.php`

Authentication URL
`http://129.213.75.60/rosariosev/plugins/REST_API/auth.php`

Example client ⓘ
`http://129.213.75.60/rosariosev/plugins/REST_API/client-example.php?`
`usertoken=eyJhbGciOiJSUzI1NiIsInR5cCI6IkpXVCIsImtpZC`

User Token
`eyJhbGciOiJSUzI1NiIsInR5cCI6IkpXVCIsImtpZC`

Save

Configuration

3 - The administrative offices instances should install the `Mobility` plugin:

- In RosarioSIS, go to School -> Configuration -> Plugins and click "Activate" the `Mobility` plugin:



Configuration

[Configuration](#) | [Modules](#) | [Plugins](#)

3 Plugins were found.



	Title	Activated	Configuration
Deactivate	Moodle	✓	Configuration
Deactivate	REST API	✓	Configuration
Activate	Mobility	✗	

- Then, click "Configuration", to configure `Mobility` plugin

	Title	Activated	Configuration
Deactivate	Moodle	✓	Configuration
Deactivate	REST API	✓	Configuration
Deactivate	Mobility	✓	Configuration

Configuration

4- On `Mobility` plugin configuration, you should inform all partner universities:

- Click on “Add Partner University” link to add a new Partner University



Configuration

[Configuration](#) | [Modules](#) | [Plugins](#)

No Requests were found.

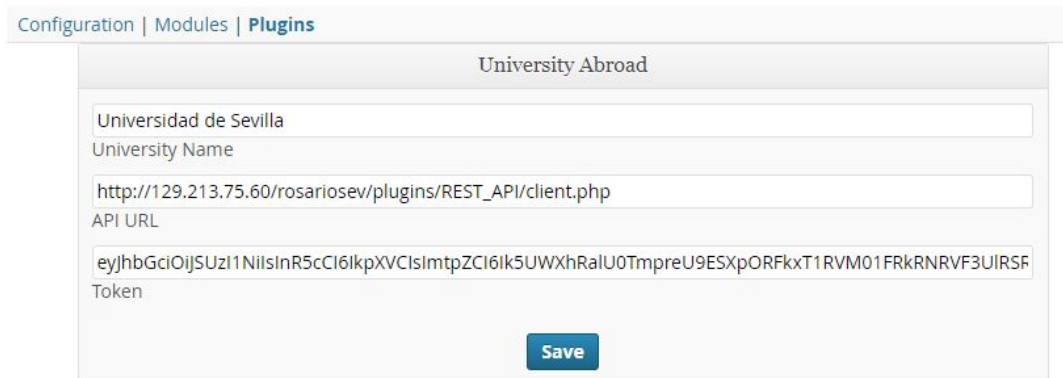
[+ Add Partner University](#)

[Save](#)

Configuration

4- On `Mobility` plugin configuration, you should register all partner universities, informing:

- The name of the partner university
- The `API URL` (endpoint URL to access the partner universities services)
 - The `REST_API` plugin, available at EDUFYSoS repository, offers the `API client.php`. So, you need to inform `<url of Partner University instance>/plugins/REST_API/client.php`
- The `University Token`, needed to authenticate the access to the services offered by the partner university
 - This token is created during the `REST_API` configuration of the partner university (the `User Token` field)



The screenshot shows a web interface for configuring a partner university. At the top, there are navigation links: 'Configuration' (highlighted in blue), 'Modules', and 'Plugins'. Below these is a header 'University Abroad'. The form contains three input fields: 'University Name' with the value 'Universidad de Sevilla', 'API URL' with the value 'http://129.213.75.60/rosariosev/plugins/REST_API/client.php', and 'Token' with a long alphanumeric string. A 'Save' button is located at the bottom right of the form.

University Abroad
Universidad de Sevilla University Name
http://129.213.75.60/rosariosev/plugins/REST_API/client.php API URL
eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCIsImtpZCI6IjU0TmpleU9ESXpORFkxT1RVM01FRkRNRVF3UIRSF Token
Save

Configuration

5- The Menu “Mobility” will appear at RosarioSiS, allowing the execution of the use cases related to a student to make a study period abroad at a partner university



Configuration

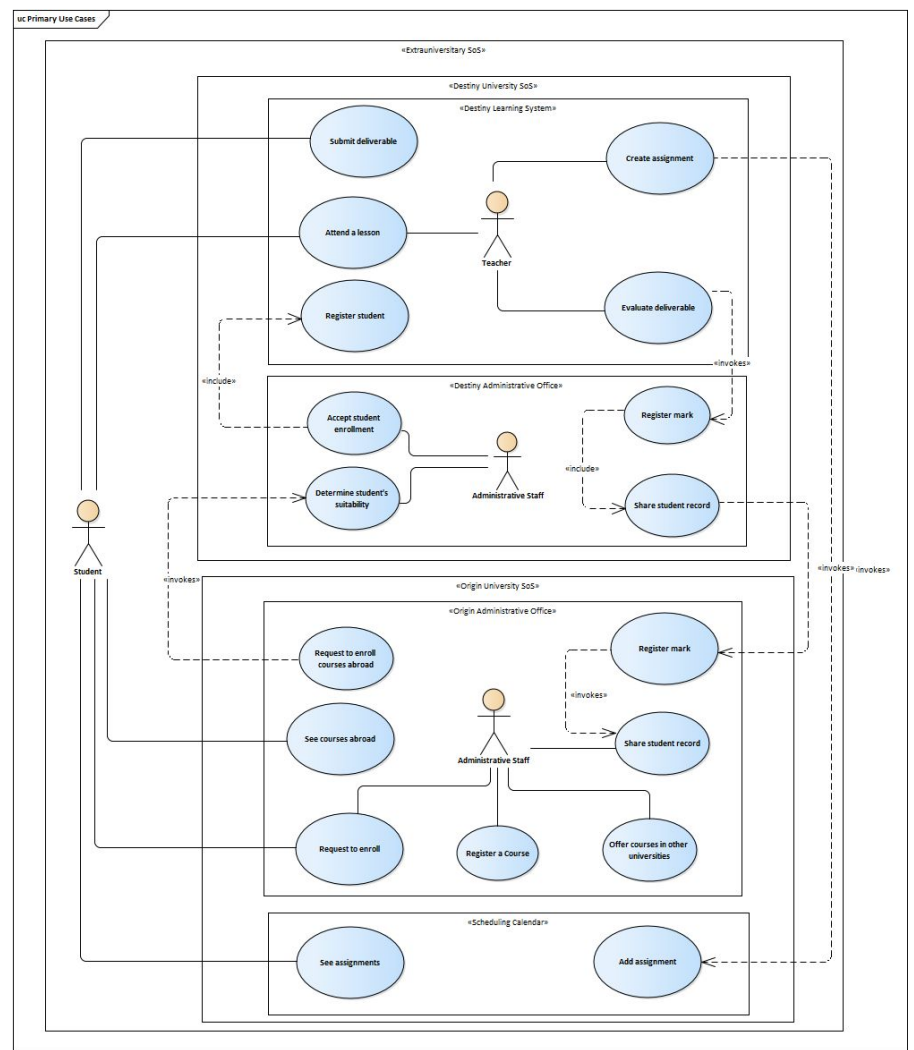
Note:

- The figures on step 2 show a configuration example for a destiny university
- The figures on steps 3, 4 and 5, show a configuration example for an origin university

To illustrate the Mobility Educational SoS Scenario, we create two basic Educational instances representing two universities:

- Universidad de Sevilla (**destiny** university):
 - With the courses created previously in the Basic Educational SoS
- Universidade Federal Fluminense (**origin** university)

Use Case Diagram



See courses abroad

A Student from Universidade Federal Fluminense, can see the following courses:

o 129.213.75.60/rosariosis/Modules.php?modname=plugins/Mobility/CoursesAbroad.php
<h2>Courses Abroad</h2>
Universidad de Sevilla
Computer Science
Software Engineering
Algorithms
Data Structures
Math
Linear Algebra
Calculus

Request to enroll

1.

129.213.75.60/rosariosis/Modules.php?modname=plugins/M...

Student Mobility Requests

UFF Test Student
Tuesday March 03, 2020

2019-2020
Quarter 3

School

No Requests were found.

+ Add a Request: University All Universities Subject Title

Save

2.

+ Add a Request: University All Universities Subject Title

All Universities
Universidad de Sevilla

Save

3.

+ Add a Request: University Universidad de Sevilla Subject Title

All Subjects
All Subjects
Computer Science
Math

Save

4.

+ Add a Request: University Universidad de Sevilla Subject Title

Computer Science

Software Engineering
Algorithms
Data Structures

5.

Student Mobility Requests

UFF Test Student
Tuesday March 03, 2020

2019-2020
Quarter 3

School
Students
Users

1 Request was found.

Course
Algorithms

+ Add a Request: University All Universities Subject Title

Save

Request to enroll courses abroad

The administrative staff can see all the students requests and decide to accept or deny them:

The screenshot shows a web browser window with the URL `129.213.75.60/rosariosis/Modules.php?modname=plugins/Mobility/ScheduleAbroad.php`. The page title is "Student Mobility Schedule". On the left, a sidebar identifies the user as "Admin A Administrator" and shows the date "Tuesday March 03, 2020". Below this, filters for "Universidade Federal Flur", "2019-2020", and "Quarter 3" are visible, along with "School" and "Students" icons. The main content area displays "1 Request was found." with a floppy disk icon. A table lists the request:

Course	Student	Status
Algorithms	UFF Test Student	Waiting

Below the table is a link: [+ Send request to institution\(s\) abroad\(s\)](#). A "Save" button is located at the bottom center.


Request to enroll courses abroad

After approves a request, the administrative office can send the request to destiny university.

1.

129.213.75.60/rosariosis/Modules.php?modname=plugins/Mobility/ScheduleAbroad.php

Student Mobility Schedule

1 Request was found. 

Course	Student	Status
Algorithms	UFF Test Student	Approved origin


+ Send request to institution(s) abroad(s)

Save

2.

129.213.75.60/rosariosis/Modules.php?modname=plugins/Mobility/ScheduleAbroad.php

Student Mobility Schedule

1 Request was found. 

Course	Student	Status
Algorithms	UFF Test Student	Waiting destination
+ Send request to institution(s) abroad(s)		

Save


Determine student's suitability

After approves a request, the administrative office can send the request to destiny university.

1.

129.213.75.60/rosariosis/Modules.php?modname=plugins/Mobility/ScheduleAbroad.php

Student Mobility Schedule

1 Request was found. 

Course	Student	Status
Algorithms	UFF Test Student	Approved origin


+ Send request to institution(s) abroad(s)

Save

2.

129.213.75.60/rosariosis/Modules.php?modname=plugins/Mobility/ScheduleAbroad.php

Student Mobility Schedule

1 Request was found. 

Course	Student	Status
Algorithms	UFF Test Student	Waiting destination

+ Send request to institution(s) abroad(s)

Save