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# Mobility Educational SoS

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# 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](https://github.com/edufysos/REST_API)
  - This version was modified from the original one available at [https://gitlab.com/francoisjacquet/REST\\_API/](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
<a href="#">- Deactivate</a>	Moodle	✓	Configuration
<a href="#">+ Activate</a>	Mobility	✗	
<a href="#">+ Activate</a>	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](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.

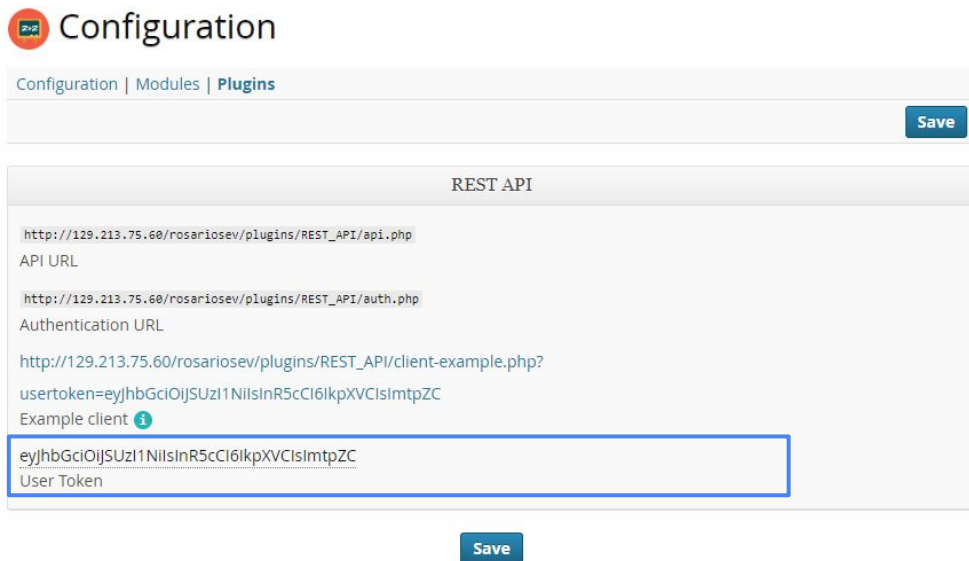
CREATE

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**

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

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

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

`eyJhbGciOiJSUzI1NiIsInR5cCI6IkpXVCIsImtpZC`  
User Token

**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.

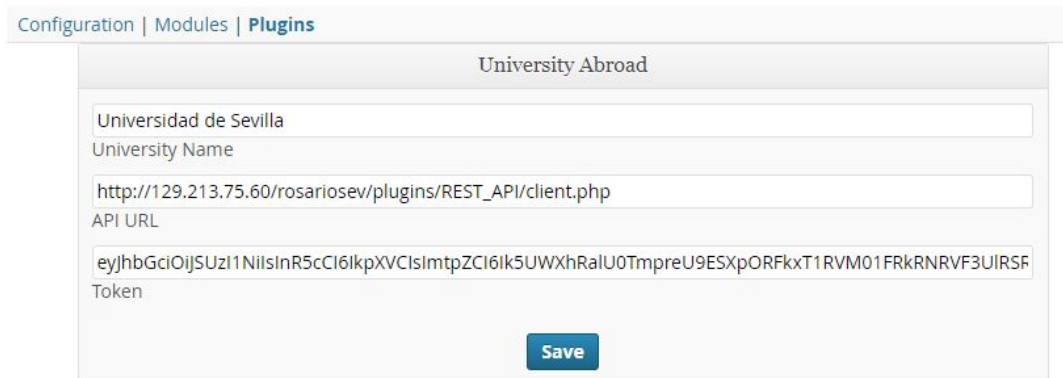
[+ Add Partner University](#)

[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
<a href="#">Save</a>



# 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

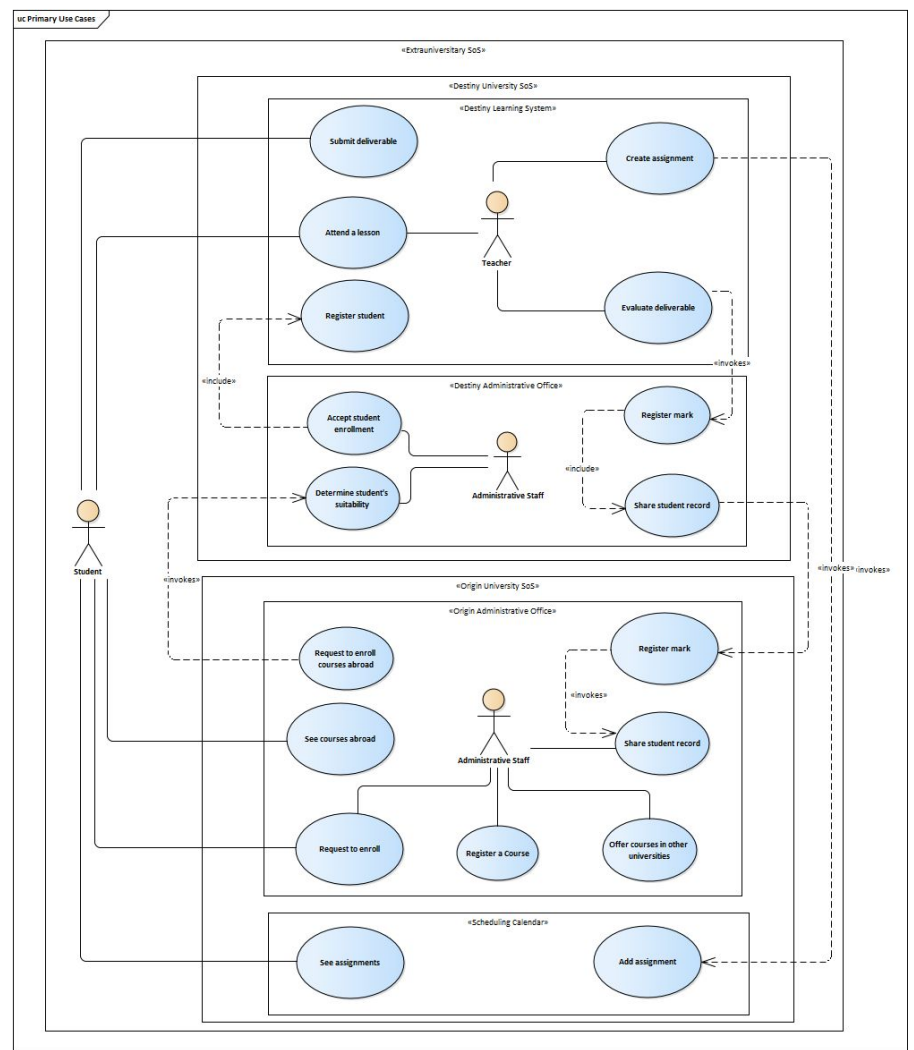
## Note:

- 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
<b>Computer Science</b>
Software Engineering
Algorithms
Data Structures
<b>Math</b>
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:

← → ↻ ⓘ Não seguro 129.213.75.60/rosariosis/Modules.php?modname=plugins/Mobility/ScheduleAbroad.php 🔑 ☆ 🔄 📄

**RosarioSIS**  
**Admin A Administrator**  
Tuesday March 03, 2020  
Universidade Federal Flur ▾  
2019-2020 ▾  
Quarter 3 ▾  
 School  
 Students

## Student Mobility Schedule

1 Request was found. 

Search

Course	Student	Status
Algorithms	UFF Test Student	Waiting ▾

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

**Save**


# 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
<b>+ Send request to institution(s) abroad(s)</b>		

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
<b>+ Send request to institution(s) abroad(s)</b>		


Save


# Determine student's suitability

Then, the partner university can check all enrollment abroad requests and determine student's suitability. If it is ok, the administrative can approved the request; otherwise, deny it.

129.213.75.60/rosariosev/Modules.php?modname=plugins/Mobility/RequestsUniversitiesAbroad.php

## Universities Mobility Requests

1 Request was found. 

Search 

Origin University	Student Name	Subject	Course	Status	Course Period
Universidade Federal Fluminense	UFF Test Student	Computer Science	Algorithms	<div>Waiting destination Waiting destination Denied destination Approved destination Finished</div>	ALG 2020.1 - Maria Silva

Save



# Accept student enrollment

If the administrative staff in the **destiny university** accept the student enrollment, s/he is enable to enroll the students in a course period. Once enrolled, the student is able to access all the contents in the learning environment system

1.

129.213.75.60/rosariosev/Modules.php?modname=plugins/Mobility/RequestsUniversitiesAbroad.php

## Universities Mobility Requests

1 Request was found.

Origin University	Student Name	Subject	Course	Status	Course Period
Universidade Federal Fluminense	UFF Test Student	Computer Science	Algorithms	Approved destination ▾	ALG 2020.1 - Maria Silva ▾

Save

# Accept student enrollment

If the administrative staff in the destiny university accept the student enrollment, s/he is enable to **enroll the students in a course period**. Once enrolled, the student is able to access all the contents in the learning environment system

2.

129.213.75.60/rosariosev/modules.php?modname=plugins/Mobility/RequestsUniversitiesAbroad.php

## Universities Mobility Requests

1 Request was found.

Origin University	Student Name	Subject	Course	Status	Course Period
Universidade Federal Fluminense	UFF Test Student	Computer Science	Algorithms	Approved destination	ALG 2020.1 - Maria Silva

Save

Kindergarten ▾  
Grade Level

Main ▾  
Calendar

Next grade at current school ▾  
Rolling / Retention Options

No Enrollment Records were found.

Attendance Start Date this School Year

+ + February ▾ 20 ▾ 2020 ▾ 13 - N/A ▾

Dropped

School

Universidad de Sevilla ▾

Enroll Students Abroad

# Accept student enrollment

If the administrative staff in the destiny university accept the student enrollment, s/he is enable to enroll the students in a course period. Once enrolled, **the student is able to access all the contents in the learning environment system**

3.

The screenshot shows a web browser window with the URL `129.213.75.60/moodlesev/course/view.php?id=3`. The page title is "MSoSSev". The course name is "2019-2020 - ALG 2020.1 - Maria Silva". The course description is "Write code that prints out 'Hello, World!'". The course progress is shown as "Your progress ?" with a progress bar. The course content includes "Announcements" and "Exercise 1 - Hello World". The user is logged in as "UFF Test Student".

MSoSSev

2019-2020 - ALG 2020.1 - Maria Silva

Dashboard / My courses / ALG 2020.1

Announcements

Exercise 1 - Hello World

Write code that prints out "Hello, World!"

Your progress ?