

# The Mobility Project

Review of the current status

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RS<sup>3</sup>G workshop, Warsaw, June 23rd 2010

- History of the Project
- Current status
- Future activity
- How to join (contribute)?

# History – 1

- **EUNIS 2008** – presentation of the USOS Mobility module for IRO.
- **MUCI** (Polish consortium) and **CINECA** (Italian consortium) decide to start the project
- **EUNIS 2009**
  - first version of mobility network (with two nodes) is presented (software ver.1.0)
  - first workhop of **RS3G** standardization body gathers other interested groups

# History – 2

- **November 2009, Workshop in Uppsala**
  - Brings together consortia and companies willing to take an active part in the project
  - Software ver. 2.0 is demonstrated
  - Work Teams formed, team leaders appointed:
    - WSDL (Janina Mincer-Daszkiewicz)
    - Identity and Access Management (Victoriano Giralt)
    - Security and Lifecycle Management (Andy Dowling)
    - Architecture (Geir Vangen)
    - Business Processes (Manuel Dietz)
    - Funding (Simone Ravaoli)

# History – 3

- **March 2010, Workshop in Bologna**
  - Brings together the Mobility Group and TF-EMC2 to discuss the aspects of security and of identity and access management
  - Possible solutions outlined

# Other actions

- **In the meantime**
  - We use:
    - Wiki
    - Mailing lists
    - Teleconferences
  - Some discussion on WSDL (thanks to **Peter Gietz**) – personal data part (conclusions gathered in Wiki)
  - Some exchange of ideas on GEMBus, PerfSONAR, Taverna, eduGain, EdUnify

# Current status – what we have

- **Reminder**
  - Prototype software ver. 2.0 (web server with UDDI, web client for testing)
  - Easy-to-install package (takes 5 minutes to deploy, web client and sever inside Tomcat, small database for UDDI entries)
  - Sample nodes with sample data (Polish, Italian, Spanish, French, Norwegian – on the way)

# List of nominated students in USOSweb

Erasmus outgoing student mobility coordination

at the faculty/unit: Faculty of Management [[choose another](#)]

## Assigned outgoing student mobilities

- print list
- export list to file
- send list to coordinators **i**

FILTER OPTIONS

Qualifications stage: (all) ▼

Mobility state: Active ▼

Mobility type: (all) ▼

Status of LA: (all) ▼

Academic year: 2010 ▼

Institution name: **i**

Erasmus Code: **i**

Country: **i**

Assigned not earlier then: **i** YYYY\_MM\_DD

Assigned not later then: **i** YYYY\_MM\_DD

OR

SELECTED STUDENT

student's name

Showing first 30 table entries ... [show more](#) | [show all](#)

No.	Surname	Name	Country	Erasmus Code	Institution name	Date of assignment	Acad. year ▼	Mobility type	Mobility state	Qualifications stage	Options
1	Adam		Norwegia	N TROMSO01	Universitetet I Tromso		2010	Studies	Active	Finished	<b>i</b> → view → learning agreement
2	Joanna		Francja	F MONTPEL02	Université de Montpellier II		2010	Studies	Active	Finished	<b>i</b> → view → learning agreement
3	Marcelina		Francja	F MONTPEL02	Université de Montpellier II		2010	Studies	Active	Finished	<b>i</b> → view → learning agreement
4	Marta		Portugalia	P PORTO07	Universidade Portucalense Infante D. Henrique		2010	Studies	Active	Finished	<b>i</b> → view → learning agreement
5	Mateusz		Niemcy	D OSNABRU01	Universität Osnabrück		2010	Studies	Active	Finished	<b>i</b> → view → learning agreement
6	Joanna		Hiszpania	E VALENCI01	Universidad de Valencia		2010	Studies	Active	Finished	<b>i</b> → view → learning agreement
7	Agata		Francja	F MONTPEL13	Ecole Supérieure de Commerce de Montpellier		2010	Studies	Active	Finished	<b>i</b> → view → learning agreement



# List of nominated students

USOS - [Wyjazdy]

Akcja Edycja Zapytanie Blok Rekord Pole Okno Pomoc

Osoby Program <wszystkie> Etap <wszystkie> Cykl dydaktyczny <wszystkie> Miejsce <wszystkie> Filtruj po etapach

Nazwisko	Imię	PESEL	Jednostka osoby	Email	Obywatelstwo
----------	------	-------	-----------------	-------	--------------

Wyjazdy

(\*) Jednostka Nazwa: [ ]

Numer umowy [ ]

Dziedzina [ ]

(\*) Rok akad. wyj. Plan [ ]

Pobyt od Pobyt do [ ] [ ]

Liczba miesięcy ze styp. bez styp. [ ] [ ]

Grupa stypendiów [ ]

Uwagi Fine [ ]

**Projekt MOBILITY**

Kanwa testowa projektu MOBILITY.  
Proszę nie używać w trakcie pracy na bazie produkcyjnej.

Data przyjazdu osoby wyjeżdżającej do uczelni przyjmującej: [ ] [ ] [ ] Pobierz

Wysyłanie listy nominowanych studentów:

Kod ERASMUS uczelni partnerskiej [ PARMA01 ] Umowa [ 1207/E/XI08 ] Rok akademicki wyjazdu [ 2009 ] Wyślij

partner\_send\_nominated\_stud

Ostatni komunikat o błędzie

Wszystkie dane pobrane z systemu są wpisywane do formularza, jednak nie są zapisywane do bazy danych.

Zamknij

udziów

Wyślij wiadomość

MOBILITY w1

MOBILITY w2

# List of incoming students

USOS - [Przyjazdy]

Akcja Edycja Zapytanie Blok Rekord Pole Okno Pomoc

Program <wszystkie> Etap <wszystkie> Cykl dydaktyczny <wszystkie> Miejsce <wszystkie> Filtruj po etapach

Osoby

Projekt MOBILITY

Kod dyscypliny	Poziom studiów	Rok akad. przyjazdu	Okres przyjazdu	Jednostka przyjmująca	Czas utworzenia wpisu
08.4	2	2008	S1	Facolta di Lingue e Letterature straniere	19.06.2009 12.38.33
10.0	4	2008	S2	Facolta di Giurisprudenza, Istituto di Diritto e	19.06.2009 12.38.33
10.0	2	2008	S1	Facolta di Lingue e Letterature straniere	20.06.2009 17.42.52
10.0	4	2008	S2	Facolta di Giurisprudenza, Istituto di Diritto e	20.06.2009 17.42.52

Jednostka wysyłająca  
Instytut Archeologii

Nazwisko i imię koordynatora jednostki przyjmującej  
Prof. Modrzewska-Pianetti Iwona

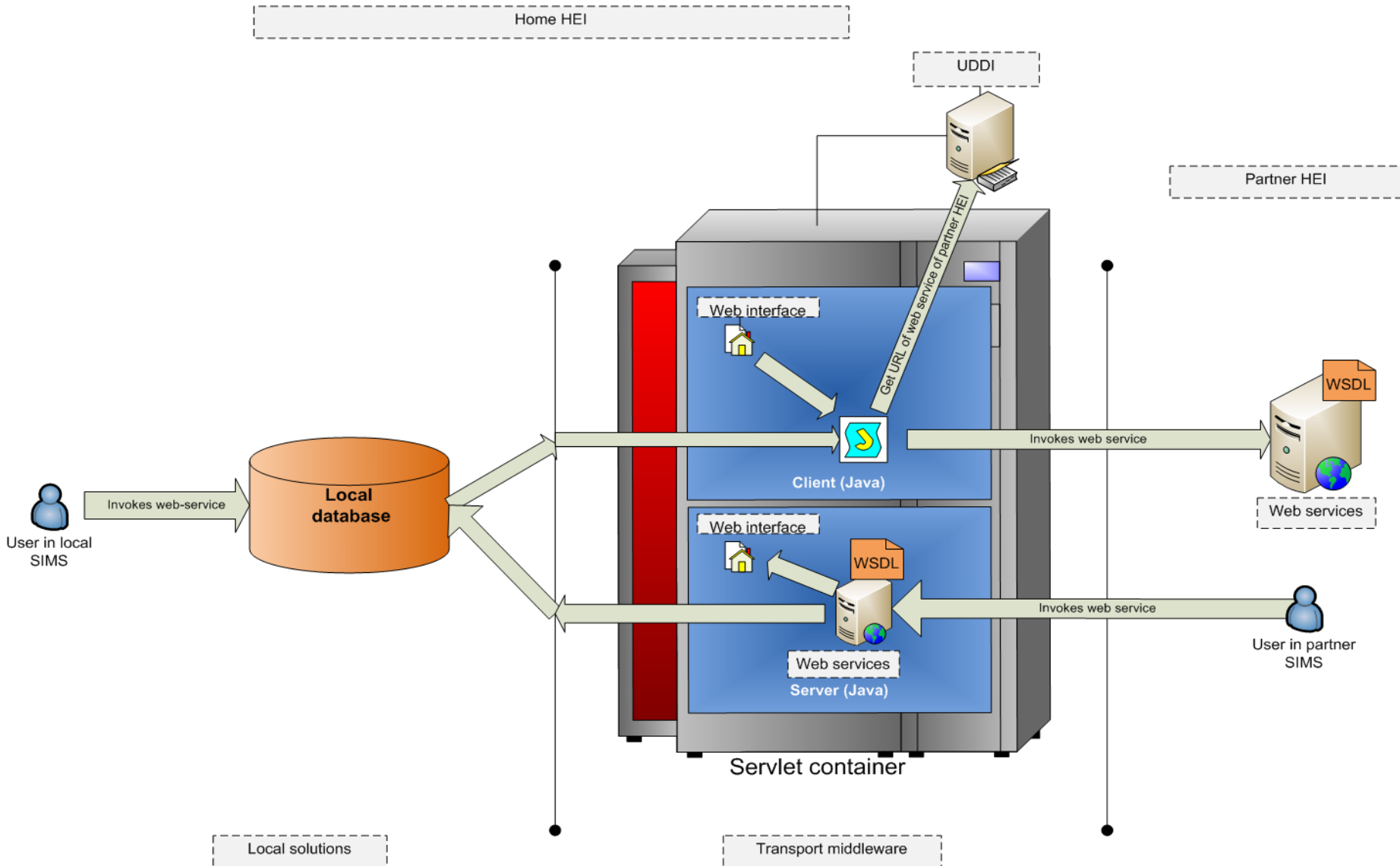
Nazwisko	Imię	Data urodzenia	Kraj urodzenia	Płeć	Czas utworzenia wpisu
Kurzydłowski	Michał	1985-10-26	PL	M	19.06.2009 12.38.33
Kowalski	Fabio	1985-01-14	PL	M	19.06.2009 12.38.33

Miasto urodzenia Email  
Warszawa michal.kurzydowski@student.s.mimuw.edu.pl

Zamknij

MOBILITY w. 1  
MOBILITY w. 2

# Architecture of the prototype (ver. 2.0)



# UDDI – Universal Description, Discovery and Integration (registry of Mobility nodes)

## Mobility Client

- Information
  - Introduction
- Web Service Methods
  - OrganizationData
    - sendOrganizationData
    - getOrganizationData
  - AgreementData
    - sendAgreementData
    - getAgreementData
  - NominatedStudents
    - sendNominatedStudents
    - getNominatedStudents
  - ArrivalDate
    - sendArrivalDate
    - getArrivalDate
  - DepartureDate
    - sendDepartureDate
    - getDepartureDate
  - CourseData
    - getCourseData
  - LearningAgreement
    - sendLearningAgreement
    - getLearningAgreement
  - TranscriptOfRecords
    - sendTranscriptOfRecords
    - getTranscriptOfRecords
  - Other
    - validateNationalPersonalId
- UDDI Registry
  - Edit
- Help
  - WSDL

### UDDI Registry

	Id	Name	WSDL URL
⊙	unipr.it	it:Universita degli Studi di Parma	http://usosphp:7878/mobility-server-transport/webservices/mobility-service?wsdl
⊙	uw.edu.pl	pl:Uniwersytet Warszawski	http://usosphp:7979/mobility-server-transport/webservices/mobility-service?wsdl

### Details

**Id \***  246 left / 255

**Name \***

**Language**

**Localized Name**

**WSDL URL \***

**Contact**

**Person Name**

**Phone Number**

**Service Name**

**Service Description**

\* - required

# Web client (client= WARSAW, server= PARMA)

http://usosphp.mimuw.edu.pl:7979/mobility-client-web/index.jsp

## Mobility Client

**Information**

- Introduction
- Web Service Methods**
  - OrganizationData
    - sendOrganizationData
    - getOrganizationData
  - AgreementData
    - sendAgreementData
    - getAgreementData
  - NominatedStudents
    - sendNominatedStudents**
    - getNominatedStudents
  - ArrivalDate
    - sendArrivalDate
    - getArrivalDate
  - DepartureDate
    - sendDepartureDate
    - getDepartureDate
  - CourseData
    - getCourseData
  - LearningAgreement
    - sendLearningAgreement
    - getLearningAgreement
  - TranscriptOfRecords
    - sendTranscriptOfRecords
    - getTranscriptOfRecords
  - Other
    - validateNationalPersonalId
- UDDI Registry
  - Edit
- Help
  - WSDL

**Client**

Id:

Name: pl:Uniwersytet Warszawski

WSDL URL: http://usosphp.7979/mobility-server-transport/webservices/mobility-service?wsdl

**Server**

Id:

Name: it:Universita degli Studi di Parma

WSDL URL: http://usosphp.7878/mobility-server-transport/webservices/mobility-service?wsdl

**Request**

Resource Path: xml/client=uw.edu.pl/server=unipr.it

Sample Data File:

```
1 <?xml version="1.0" encoding="UTF-8"?><tns:sendNominatedStudentsRequest
2 xmlns:tns="http://mobility.usos.edu.pl" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
3 xsi:schemaLocation="http://mobility.usos.edu.pl MobilitySchema.xsd">
4 <tns:agreementId>
5 <tns:homeId>
6 <tns:organizationId>uw.edu.pl</tns:organizationId>
7 <tns:value>982/E/II08</tns:value>
8 </tns:homeId>
9 <tns:partnerId>
10 <tns:organizationId>unipr.it</tns:organizationId>
11 <tns:value>1207/E/XI08</tns:value>
12 </tns:partnerId>
13 </tns:agreementId>
14 <tns:academicYear>2008</tns:academicYear>
15 <tns:nominatedStudentsWithPersonalData>
16 <tns:uniquePersonalData>
17 <tns:student>
18 <tns:nationalPersonalId>PL:85 </tns:nationalPersonalId>
19 <tns:givenName1>Michał</tns:givenName1>
20 <tns:givenName2>Marek</tns:givenName2>
21 <tns:surname1>Kurzydłowski</tns:surname1>
22 <tns:gender>1</tns:gender>
23 <tns:studentId>uw.edu.pl:8001</tns:studentId>
```

Data successfully sent.

Type	Line	Column	Report
------	------	--------	--------

**Response**

```
1 <?xml version="1.0" encoding="UTF-8"?><tns:sendArrivalDateResponse xmlns:tns="http://mobility.usos.edu.pl"
2 xsi:schemaLocation="http://mobility.usos.edu.pl MobilitySchema.xsd" xmlns:soap="http://schemas.xmlsoap.org
3 /soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"/>
```

# Web server (server=PARMA)

http://usosphp.mimuw.edu.pl:7878/mobility-server-web/

### Mobility Server

Items: Page 15 Count 51 Id unipr.it

2009-11-13 14:28	getOrganizationDataRequest
2009-11-13 14:29	getOrganizationDataRequest
2009-11-13 14:31	getOrganizationDataRequest
2009-11-13 14:32	getOrganizationDataRequest
2009-11-13 17:04	sendAgreementDataRequest
2009-11-14 21:05	sendNominatedStudentsRequest

```
<tns:sendNominatedStudentsRequest xmlns:tns="http://mobility.usos.edu.pl" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://mobility.usos.edu.pl MobilitySchema.xsd">
  <tns:agreementId>
    <tns:homeId>
      <tns:organizationId>uw.edu.pl</tns:organizationId>
      <tns:value>982/E/108</tns:value>
    </tns:homeId>
    <tns:partnerId>
      <tns:organizationId>unipr.it</tns:organizationId>
      <tns:value>1207/E/108</tns:value>
    </tns:partnerId>
  </tns:agreementId>
  <tns:academicYear>2008</tns:academicYear>
  <tns:nominatedStudentsWithPersonalData>
    <tns:uniquePersonalData>
      <tns:student>
        <tns:nationalPersonalId>PL:85      </tns:nationalPersonalId>
      </tns:student>
    </tns:uniquePersonalData>
  </tns:nominatedStudentsWithPersonalData>
</tns:sendNominatedStudentsRequest>
```

# Future activity – 1

- Business processes validated in various universities
- More sample data  
the best way to validate various aspects of WSDL (data format, number and specification of web methods) is to write sample files for own data and try to simulate (even on paper) various real life scenarios of sending/getting data
- Validating WSDL against existing standards  
taking into account specific objectives and needs concerning exchanged data

## Future activity – 2

- Solving problems of
  - Registry of mobility web servers and look-up service
    - Testing services of EdUnify
    - GEMbus registry synchronization mechanisms
    - Who should administer it?
  - Authorization and authentication
    - Using GEMBus integration framework (AS of PerfSONAR)
    - Using eduGAIN (<http://www.edugain.org/>)?
  - Legal aspects of data security and privacy



## Future activity – 3

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- Idea:

Mobility Project as a use case for **GEMBus**  
a loosely coupled "bus of buses", able to share registry information and providing some common security, messaging, composition and logging services

## Future activity – 4

- Designing and implementing Mobility network:
  - Easy to deploy
  - Easy to manage
  - Easy to use
  - Open standards
  - Open-source
  - Grid-like service (using grid infrastructure)
  - Testbed for various technologies and solutions
- Software for local system should be developed by local vendors, consortia, ...

# How to join?

- Choose your area of interest
  - write XML files with mobility data for your institution
  - simulate, document real life scenarios
  - install software
  - enable exchange of data
  - delegate your experts part-time (e.g. in architecture, identity management, security, GEMBus, eduGain)
  - treat this as a platform for experimentation with various technologies (may be useful for your other projects anyway)
  - ask your student management software provider for cooperation

# Links and readings

- Project home page

<http://usos.edu.pl/Mobility>

- Web client

<http://usosphp.mimuw.edu.pl:7979/mobility-client-web/>

- Web server

<http://usosphp.mimuw.edu.pl:7979/mobility-server-web/>

- Rafał Nagrodzki, *The Mobility Project*, Master Thesis in Computer Science, University of Warsaw