Cloud for Europe
Presentation at ITAPA

Peter Weber
November 2014
Agenda

1. Project Mission
2. Project Objectives
3. C4E Major Deliverables
4. Gaps to be Addressed by C4E R&D Solutions
5. Challenges Addressed by C4E
6. Solutions Selection
7. Pre-Commercial Procurement
Elevator Pitch

Public sector cloud use as a collaboration between public authorities and industry through pre-commercial procurement
Cloud for Europe (C4E) brings together public authorities and industry to support public sector cloud use.

• Identify **obstacles** for cloud use in the public sector
• Define **services** hindered by those obstacles
• Procure research from industry to find **innovative solutions** for cloud services
Project Objectives

• Enable **public sector cloud adoption** in open dialogue between public sector and industry

• **Address concerns** on data protection, security, legal and contractual aspects

• Support related **research** from industry
  • Use of **pre-commercial procurement** as an instrument for innovation in the public sector
Who we are
C4E Major Deliverables

First 14 months of C4E project activities were focused on gap analysis of Public Administration legal, business and operational barriers for Cloud computing adoption and on PCP tender preparation.

Legal aspects of Cloud services and legal project support
  • Legal Implications of CC in PA
  • Legal support of PCP

Gap analysis
  • Public Sector Study
  • Study of Market Vendor offerings and PA requirements
C4E Major Deliverables

PCP Preparation
• Services Catalogue
• Selection of Joined PCP method
• Services selection and specifications
• Stakeholders consultation report
• PCP PIN preparation

PCP Execution
• PCP tender PIN in cooperation with WP4
• Procurers Agreement
• Frame Agreement
• Tender preparation in cooperation with WP2, WP4, WP9
C4E Major Deliverables

Validation
• Exclusion, Selection, Award criteria (and questioner)
• Validation procedures

Communication
• www.cloudforeurope.eu, Twitter, Linkedin, YouTube
• Press releases, white paper
• Legal workshop in June
• Market communication meetings in March and June
• 23 international and 10 national events
Gaps To Be Addressed by C4E R&D Solutions

- C4E identified gaps between Public sector requirements and market Vendor offerings
- C4E identified numerous services that show that issues can be met
  - Data protection, security, legislation, enforcement, vendor interoperability in heterogenous environment
- Structure of Services
  - Piloting services: Address an actual G2C, G2B, or G2G Business Process
  - Horizontal services: Support the piloting services
- Process of Services selection
  - State of the Art and gap analysis
  - Collection of services list through stakeholder dialogue
  - Final selection of services for PCP
# Challenges Addressed by C4E

<table>
<thead>
<tr>
<th>Phase</th>
<th>No.</th>
<th>Challenge Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design, Procurement</td>
<td>1</td>
<td>Interoperability for cross-country federated cloud service selection and competition</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>Matching customer requirements with cloud service specification</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>Assessing the legislation compliance of a cloud storage service to its contractual and functional description</td>
</tr>
<tr>
<td>Transition, Delivery</td>
<td>4</td>
<td>Defining means of assuring service compliance with legislation of EU countries</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>Digital archiving and preservation</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>Federated cross-border workflow engine</td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>Legislation-aware data provision and access</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>Overcome, or address legal barriers to cloud computing</td>
</tr>
<tr>
<td>Operation</td>
<td>9</td>
<td>Enable the cloud development community to create and maintain legislation execution</td>
</tr>
<tr>
<td></td>
<td>10</td>
<td>Legislation awareness, dynamic management, and propagation</td>
</tr>
<tr>
<td></td>
<td>11</td>
<td>Cloud service SLA assessment and monitoring</td>
</tr>
<tr>
<td></td>
<td>12</td>
<td>Seamless change of service provider</td>
</tr>
</tbody>
</table>
I don't understand the relation between the vertical names and the horizontal lines. Friendly speaking I don't know why e.g. procurement is in the design line.

Linda Strick; 29. 8. 2014
Service List Overview

Piloting Services

1. Basic Communication
2. Document Mgmt. and Collaboration
3. Customs Supply Chain
4. Customs Data Pipeline
5. Legislation-Aware Storage
6. European Citizen Initiative
7. Archive as a Service
8. Secure Personal Data and Document Vault
9. Documents and Files Interoperability Node
10. eDocument Service
11. Restful Secure Distributed Collaboration Tools
12. Legislation Executing Cloud Services
13. Personal Digital Asset Service

Horizontal Services

1. eID as a Service
2. Encryption as a Service
3. Independent Third Party Assurance
4. Public Administration Cloud Services Broker
5. Cloud Certification as a Service
6. Resilient Open-Source Cloud Services Stack
7. Changing the Cloud Provider
Service List Consolidation

**Piloting Services**
1. Basic Communication
2. Document Mgmt. and Collaboration
3. Customs Supply Chain
4. Customs Data Pipeline
5. Legislation-Aware Storage
6. European Citizen Initiative
7. Archive as a Service
8. Secure Personal Data and Document Vault
9. Documents and Files Interoperability Node
10. eDocument Service
11. Restful Secure Distributed Collaboration Tools
12. Legislation Executing Cloud Services
13. Personal Digital Asset Service

**Horizontal Services**
1. eID as a Service
2. Encryption as a Service
3. Independent Third Party Assurance
4. Public Administration Cloud Services Broker
5. Cloud Certification as a Service
6. Resilient Open-Source Cloud Services Stack
7. Changing the Cloud Provider

**Final Services Selection**
1. Secured Legislation -Aware Storage
2. Legislation Execution Cloud Services
3. Federated Certified Services Brokerage for EU Public Administration Cloud

This project is partially funded by the European Union’s Seventh Framework Programme: FP7-ICT-2013-10 and Grant agreement no: 610650
Federated Certified Brokerage

Status quo

• Cross-border cloud services must be secure in terms of country and EU legislation, privacy protection and security
• Current fragmentation can be overcome by federated EU public administration cloud
• Dynamic real time cross-border service certification monitoring

Issues to be solved

• Interoperability
  (service governance, data portability, identity propagation)
• Service certification
  (architecture of components, automated certification)
• Legislation awareness
  (legislation compliance definition and assessment, interface for legislative changes propagation)
Secure Legislation-Aware Storage

**Status quo**
- Limited service offers for legislation awareness and security mechanisms to ensure integrity
- Encryption performed by the user or cloud provider claims to encrypt
- Cloud storage offering often not clearly perceived as legislation compliant
- Multi-legislation requirements difficult and expensive to satisfy

**Issues to be solved**
- Establish trust by contractual means
- Simplify selection/procurement of legislation compliant cloud (storage) services
- Create tools to manage citizen access rights to personal data in a legislation compliant way
- Tackle multiple regulations concerning the storing of data: archiving, disclosure, and restricted access to backups
Legislation Execution Cloud Services

**Status quo**
- Some legal barriers lead to no go decisions for cloud adoption
- For sensitive data only private or community clouds are used
- Example: no automatic notification of unauthorised access to data owner and service provider

**Issues to be solved**
- Developing a cloud service that meets requirements imposed upon cloud actors by national or international legislation

**Possible solutions**
- A framework (methodology, guidelines, specifications)
- Generic services to be combined with business services
- Services, integrated with business services
Pre Commercial Procurement (PCP)

PCP is one particular approach for procuring R&D services only, which enables public procurers to:

- Develop solution towards concrete public sector needs, whilst comparing/validating alternative solution approaches
- Share the risk and benefits with the participating companies in a way that does not involve State aid
- Create optimal conditions for wide commercialization of R&D results
PCP Procurement Model

- A group of public purchasing authorities collaborate in such a way that one public purchasing authority of the group is designated as **Lead Authority**
- Each public purchasing authority will authorise the Lead Procurer to **act on its behalf**, in accordance with **Italian law**
- Conduct of the Joint PCP Procedure
- Award, signature and management of the **Framework Contract**
- All in **consultation** with other purchasing authorities involved in the Joint PCP
PCP Phased Process

Phase 0: Curiosity Driven Research
Phase 1: Solution design
Company A
Company B
Company C
Company D

Phase 2: Prototype development
Company B
Company C
Company D

Phase 3: Original Development of a limited volume of first products/services in the form of a test series

Phase 4: Commercialisation Diffusion of products/services
Company A, B, C, D or X

Pre-commercial Procurement
Procurement of innovation
# Joint PCP Procedure

<table>
<thead>
<tr>
<th>PHASES</th>
<th>MONTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tender pre-notice</td>
<td>MAY 2014</td>
</tr>
<tr>
<td>Tender release</td>
<td>NOVEMBER 2014</td>
</tr>
<tr>
<td>Solution Selection</td>
<td>4 MONTHS</td>
</tr>
<tr>
<td>Prototype Selection</td>
<td>8 MONTHS</td>
</tr>
<tr>
<td>First Test Product Selection</td>
<td>6 MONTHS</td>
</tr>
</tbody>
</table>
Distribution of rights and obligations of the parties published in tender documents

- **Conditions of Participation**
  relevant and proportionate to the circumstances of the contract

- **Instructions to Participants**

- **Framework Agreement**
  One single Framework contract covering all the PCP phases, which shall contain an agreement on the future procedure for implementing the different phases, through specific contracts

- **Descriptive Document**
Initial Offer Evaluation

EVALUATION COMMITTEES

Evaluation Committees

- Administrative
  - selection on the basis of the exclusion and selection criteria
- Technical
  - evaluation on the basis of the award criteria
Thanks for your attention!