Cloud for Europe Project: New Solutions for Addressing Cloud Security Issues

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Abstract

Cloud for Europe strategic objective has been to identify the obstacles for cloud adoption by the public sector and to find solutions for addressing these challenges. One key challenge for cloud adoption is the security of the data, in particular the privacy of the data. Public institutions have been reluctant to moving sensitive data in and out of the cloud, specially the data related to citizens. Thus, C4E has focused its resources on finding solutions to ensure a certain level of security and privacy by acquiring research and development from industry using pre-commercial procurement procedures. As a result, the industry is expected to deliver a federated certified service brokerage, a secure legislation-aware storage solution and a legislation execution methodology or framework. We will describe C4E vision on how these three components could be used for denying unauthorized access to private data and for reacting to security breaches, using a dynamic set of rules.

Keywords: IoT, security, cloud computing, C4E, policy, business rules

References:

1. European Commission. Community Research and Development Information Service. [Online] http://cordis.europa.eu/project/rcn/109302_en.html.
2. H. Leitold (A-SIT), A. Reiter (IAIK), F.J.M. van Dam (MINEZ). D4.1 Services Catalogue. s.l. : Cloud fo Europe, 2014. deliverable.
3. C4E. Second market consultation input paper. www.cloudforeurope.eu. [Online] [Cited: 06 10, 2016.] http://www.cloudforeurope.eu/documents/10179/51413/Secon d_market_Consultation_input_paper.pdf/db5e65bd-0b75- 423a-b7df-75e69c155dbf?version=1.0.
4. C4E. First market consultation input paper. www.cloudforeurope.eu. [Online] [Cited: 06 10, 2016.] http://www.cloudforeurope.eu/documents/10179/51413/First+ market+consultation+input+paper/d2cca9eb-8f1b-4692-86ef- 143eac8c930b?version=1.0.
5. H. Leitold (A-SIT), A. Reiter (IAIK). D4.3 Services Specification. s.l. : Cloud for Europe, 2014. deliverable.
6. Granger, Stewart. Digital Preservation & Emulation: from theory to practice. s.l. : Archives & Museum Informatics.
7. Congress. OpenStack Wiki. [Online] OpenStack. [Cited: 06 10, 2016.] https://wiki.openstack.org/wiki/Congress.
8. Open Policy Agent . [Online] [Cited: 06 10, 2016.] http://www.openpolicyagent.org/.