Cloud as a Growth Engine for Business

Shaping policy that affects Cloud Computing

Jonathan Sage
CloudWatch concertation meeting, September 11th 2014
The Future is a Composable Business

- Restlessly reinvent and innovate your processes
- Make better decisions with real-time actionable Insights
- Accelerate your time to market
- Integrate across the enterprise
The Path to Composable Business

IS

Dynamic Cloud

Seamlessly extends enterprise IT with Cloud for changing business needs:

• Acts as one dynamically managed, secure environment
  • Flexible choice of delivery models
  • Interoperable through open standards
Not Just Public or Just Private, Hybrid Cloud is the future

On-Premises Cloud & IT
- Fully customizable
- Robust management
- Secure by design

Off-Premises Cloud
- Low entry cost
- Pay-per-use
- Highly elastic

Hybrid Cloud
- Best of both worlds.
- Better outcomes.

- Maximize return on existing IT investments
- Match workloads to best-fit infrastructure
- Move workloads as business needs change
- Hit the right balance of risk to speed
- Meet seasonal capacity without CapEx
- Add new capabilities quickly

Cloud: Think it. Build it. Tap into it.
The European Commission's strategy 'Unleashing the potential of cloud computing in Europe'

Adopted on 27 September 2012, it is designed to speed up and increase the use of cloud computing across the economy.

Cloud strategy's key actions:
- Cutting through the jungle of technical standards
- Development of model 'safe and fair' contract terms and conditions
- A European Cloud Partnership to drive innovation and growth from the public sector.

Groups working on implementing the strategy:
- ETSI: Cloud Standards Coordination - Delivered 12/2012
- The Cloud Select Industry Group on Certification Schemes - Delivered 02/2014
- The Cloud Select Industry Group on Code of Conduct - To be delivered end 2014
- The Cloud Select Industry Group on Service Level Agreements - Delivered 06/2013
- Steering Board Cloud for Europe
- The European Cloud Partnership
- Report Delivered 03/2014
- Tender Specs to be launched 10/2014

Source: European Commission, DG Connect September 2014
Cloud Strategy – Where are we?

1) Cloud Standards Coordination –
   ETSI (Ver 1 Dec 2013, Ver 2 early 2015)
2) Security Certification Schemes – Cloud SIG
   ENISA - list (Feb 2013) and
   ENISA - metaframework (Mid 2014)
3) Service Level Agreements – Cloud SIG
   Guidelines (June 2014)
4) Code of Conduct for Cloud SPs - Cloud SIG
   To Article 29 Working Party (Mar 2014)
   Operational (end of 2014)

Source: European Commission, DG Connect September 2014
ETSI CSC - Main conclusions

- **NO Jungle of Standards**
- **Enough Standards to start with**
- **Despite new standards coming, some gaps identified**
- **Foster collaboration to ensure no fragmentation happens**
Cloud Computing Certification

Cloud Certification Schemes List - CCSL

Welcome to the Cloud Certification Schemes List (CCSL) - a listing of different certification schemes for cloud computing customers, developed and maintained by ENISA in tight collaboration with the European Commission and the private sector (see below).

What is a cloud certification scheme?
Before buying a cloud service, customers want to know if the service is secure and reliable. But cloud computing services are complex and built up from many different ICT components (cables, large data centers, software, etc., etc.), so it is not really feasible for customers to check all the technical details by themselves. In a cloud certification scheme one fixed set of security requirements is checked, once for all customers. In this way a certification can simplify the procurement of cloud services by customers.

How to use this list?
CCSL gives an overview of the different existing certification schemes which could be relevant for cloud computing customers. CCSL also shows which are the main characteristics of each certification scheme. For example, which are the underlying standards, who can perform the certifications, who audits the cloud services. CCSL also provides links and references to each certification schemes for further reading.

Click on the icons of each certification scheme below, to view the characteristics of each scheme. Note that in the future more schemes may get listed here.

Cloud SLA
Standardisation Guidelines

The *Cloud SLA Standardisation Guidelines* will help professional cloud users to ensure essential elements are included in plain language in contracts they make with cloud providers. Relevant items include:

- The availability and reliability of the cloud service,
- The quality of support services they will receive from their cloud provider
- Security levels
- How to better manage the data they keep in the cloud.

Source: European Commission, DG Connect September 2014
Input to ISO Cloud Computing Working Group

- This initiative will have deeper impact if standardisation of SLAs is done at international level, e.g. through international standards, such as ISO/IEC 19086.
- To this end, the C-SIG on SLAs is also working with the ISO Cloud Computing Working Group, to present a European position on SLA Standardisation (ISO meeting in October 2014)
- The Cloud SLA Standardisation Guidelines will thus feed into ISO's effort to establish international standards on SLAs for cloud computing.
Code of Conduct on DP: Background

- **Directive 95/46/EC art 27 encourages adoption of codes of conduct and their endorsement by art 29 Working Party**

- **EC Cloud Computing Strategy of 29-09-2012**
  - “Work with industry to agree a code of conduct for cloud computing providers to support a uniform application of data protection rules which may be submitted to the Article 29 Working Party for endorsement in order to ensure legal certainty and coherence between the code of conduct and EU law.”

Source: European Commission, DG Connect September 2014
Data Protection Code of Conduct

*Code of Conduct Working Group*
- 1st meeting 10 April 2013
- Under DG Connect’s Cloud Select Industry Group
- Continuous drafting until end of August

*Work progress*
- Second version of the Code of conduct was submitted to the Article of 29 Working Party ("29WP").
- Comments from the WP29 TS received in May 2014
- Revised version of the Code and submission to the 29 WP planned for end of August 2014
- Aim for endorsement before end of 2014
Public sector & policy barriers

- **Privacy and security** are common barriers – addressed but stressed at different levels
- **Other:**
  - Regulatory issues (e.g. requirements for sharing data between administration in Italy - rigidity in EU procurement law (G-cloud))
  - Technical issues (e.g. lack of maturity of technologies)
  - Financial issues (e.g. assessing real costs of cloud deployment)
  - Adapting SLAs to cloud and public sector
- **Changes in process and ways of working** are, if not a barrier, a main challenge in implementing cloud initiative in the public sector:
  - Cloud requires adjustment in ICT management processes, automation of tasks and changes in skills requirements for staff, pulling resources together between administrations used to manage their own bespoke ICT solutions, etc.

Source: European Commission, DG Connect September 2014
Cloud: Think it. Build it. Tap into it.

Source: European Commission, DG Connect September 2014

**Trusted Cloud Europe Questionnaire**

- Harmonise Data Protection Rules
- Provide Clearer Rules to Resolve Contractual or Service Disputes
- Move from Formal to Functional Requirements as regards Data Location
- Allow non-EU Providers
- Allow Providers Adhering to Trusted Cloud Europe framework
- Improve Legal Frameworks
- Encourage Information Security Controls balanced with Consumer & Provider Needs
- Brand 'Trusted Cloud Europe'
- Support Standards & Certification without inhibiting Innovation
- Encourage Cloud-Active Procurement Policies

Legend:
- **AGREE**
- **NO OPINION**
- **DISAGREE**

Source: European Commission, DG Connect September 2014
Cloud: Think it. Build it. Tap into it.

Trusted Cloud Europe Survey
Priorities to Consider

- Encourage Cloud-Active Procurement Policies
- Harmonise Data Protection Rules
- Provide Clearer Rules to Resolve Contractual or Services Disputes
- Move from Formal to Functional Requirements as regards Data Location
- Permit Equal Data Sovereignty for Providers both inside and outside Europe
- Improve Legal Frameworks
- Brand Trusted Cloud Europe
- Support Standards and Certification without inhibiting Innovation
- GREEN PAPER Formal Consultation of these Policy Options

Source: European Commission, DG Connect September 2014