D3.2 Procurement Best Practices Interim Report

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20 January 2016
Toward the European Open Science Cloud

Scope of the report

- The main scope of this report is cloud computing service procurement best practices in public research organisations.
- Since there are commonalities between procurement practice used by public research organisations and public administration, the scope of this work was extended so to include also public administrations and agencies.

Structure of the report

- Scope and Objectives of the report
- Target Audience
- Methodology and Approach
- Approaches and barriers to the procurement of cloud services
- Best Practices
- Conclusions

Objectives of the report

- Develop a collection of procurement best practices in the public sector, both in Research and Public Administration
- Provide a description of how current good practices can overcome barriers, and to identify unaddressed barriers
- Support the goal stated in the European Cloud Computing Strategy which calls for a framework of standards to give procurers confidence that they have met their compliance obligations and that they are getting an appropriate solution to meet their needs

Target Audience

- Public research organisations
  - Procurement initiator
  - Technical officer
  - Procurement officer
- Others
  - Policy makers
  - Cloud Service Provider (CSP)

Approaches and barriers to the procurement of cloud computing

- Procurement barriers to the adoption of cloud services has been curated from the outcomes of D2.1 Research Procurement Model and D3.1 Procurement Barriers Report.
- Existing procurement approaches are documented in the PICSE Procuring cloud services today report. Analysis was expanded to procurement approach of Crown Commercial Service (CCS) in UK and US procurement approaches of Internet2 Net+ initiative and the US General Service Administration.

Best practices

- This report will propose procurement best practices to adopt with particular emphasis on overcoming procurement barriers in the area of:
  - Policy and Organisation
  - Processes
  - Staff
  - Tools
  - Cloud Service Providers

Best practices: Policy and Organisation

Best practice	References/Sources
6.1.a: Cloud Strategy	EC, G-Cloud, NET+, US GSA,
6.1.b: Procurement Policy	EC, G-Cloud, NET+, US GSA,
6.1.c: Consumption based model	EC, G-Cloud, NET+, US GSA,
6.1.d: Executive support	EC, G-Cloud, NET+, US GSA,
6.1.e: Best Practices documented	EC, G-Cloud, NET+, US GSA,

Table 1: Policy and Organisation Best Practices

Best practices: Processes

Best practice	References/Sources
6.2.a: Cloud business case	G-Cloud, NET+, US GSA
6.2.b: Technical requirements definition	EC, G-Cloud, NET+, US GSA
6.2.c: Legal requirements definition	EC, G-Cloud, NET+, US GSA
6.2.d: Pre-procurement market engagement	EC, G-Cloud
6.2.e: Cloud pilots	NET+
6.2.f: Joint procurement	NET+
6.2.g: Tender evaluation criteria	G-Cloud, US GSA
6.2.h: Contract negotiation	G-Cloud, NET+
6.2.i: Cloud terms of service & performance monitoring and management	G-Cloud, US GSA
6.2.j: Cloud contract payments & billing monitoring and management	G-Cloud, US GSA

Table 2: Processes Best Practices

- Additional best practices identified:
  - Scope determination (G-Cloud, NET+, US GSA)
  - Fast-track process (NET+)

Best practices: Staff

Best practice	References/Sources
6.3.a: Skills of the IT staff involved in the procurement action	EC, NET+
6.3.b: Legal competences related to cloud computing	EC, NET+
6.3.c: Procurement staff skills	EC, NET+
6.3.d: Financial staff skills	EC, NET+
6.3.e: Engagement of the IT department	EC, NET+
6.3.f: Cloud users engagement	EC, NET+

Table 3: Staff Best Practices

Best practices: Tools

Best practice	References/Sources
6.4.a: Contract performance monitoring system	EC, G-Cloud, US GSA
6.4.b: Billing monitoring system	US GSA
6.4.c: Cloud procurement checklist	G-Cloud
6.4.d: SLA templates	EC, G-Cloud, NET+, US GSA
6.4.e: Usage of cloud-based standards	EC, G-Cloud, NET+, US GSA
6.4.f: Cloud tender template	

Table 4: Tools Best Practices

- Additional best practice identified:
  - Standard cloud contract (G-Cloud, NET+, US GSA)

Best practices: CSPs

Best practice	References/Sources
6.4.a: Approved CSP list	G-Cloud, NET+, US GSA
6.4.b: Measurements and metrics	G-Cloud, NET+, US GSA
6.4.c: Service customizability	G-Cloud, NET+, US GSA
6.4.d: Contractual flexibility	G-Cloud, NET+, US GSA
6.4.e: CSP certifications	EC, G-Cloud, NET+, US GSA
6.4.f: Engagement	G-Cloud, NET+, US GSA
6.4.g: Feedback collection	G-Cloud, NET+, US GSA

Table 5: CSP Best Practices

- Additional best practice identified:
  - Contract termination* (G-Cloud, NET+, US GSA)

*according to Gartner users should negotiate conditions for termination of the contract for at least six months notice for the provider to terminate, unless they have materially breached the contract.

Unaddressed barriers

- Lack of systematic approach to defining security requirements during the cloud procurement process
- Current practice of using SLA is limited only to performance measurement
- Privacy remains one of the main barriers as data protection/ privacy provisions are usually stated within technical requirements
- Current internal policies and procurement rules are not enabling easy procurement of cloud services

Conclusions

- Cloud marketplace/broker model is offering cloud service catalogues allowing their customers to buy commoditised cloud based solutions in a transparent manner where pricing is known and brokerage services are performed by the marketplace/framework in order to ease the cloud purchase for end customers.
- Instead of developing cloud tender templates, organisations are looking more towards marketplace standard cloud contracts which are used as „a standard specification“ and ease cloud purchase for the organisations.
- From the identified best practices we can note that CSA CCM and ISO/IEC 27001 are being most often used as baselines for definition of security requirements.
- Public research organisations are encouraged to negotiate SLAs related to performance, security, data management and privacy.
- There is a clear need for adoption of new skills and competences and it is the responsibility of the organisations to properly train all actors involved in the procurement process of cloud services.
- Contract termination and cloud escrow are two additional areas where improvement could be made.