Recommending Cloud Service Providers

Cutting through the cloud computing jungle: how to select a vendor for your cloud service requirements?

Thesis design

Renee Vaessen

Supervisors: Damian Tamburri (VU)
Hector Fernandez (VU / ElasticBox)
Albert Mahler (Convenience ICT)
Patricia Lago (VU)
CSP selection criteria, examples

Organizational factors:
- vendor lock in, portability, support
- security, privacy, compliance
- service portfolio, operating system

QoS:
- elasticity, reliability, inter-operability

Functional requirements:
- Billing process
- cost per unit, pricing options, contract options

Costs:
- service portfolio, operating system
  - VU MSc Information Science 2013-2014
  - Thesis Design of master project: Recommending Cloud Service Providers
  - Renee Vaessen
Organizational criteria

• Decision support models focus on criteria for
  – functional requirements
  – quality of service (QoS) and
  – cost

• To make a better choice, organizational criteria have to be taken into account in the selection process
Research Question

• How to evaluate organizational factors in the selection of a CSP?

  – RQ-A: Which organizational factors are important for CSP selection?

  – RQ-B: How to integrate these factors into a selection process (for a specific IaaS use case)?
Research plan

• Analyse IaaS selection models
• Inventorize and model organizational criteria
  • Analysis of organizational criteria
  • Validate criteria (expert interviews)
• Apply the organizational criteria to a selection process of one IaaS use case
  • Case study, evaluate validity of organizational criteria
Research results

• A set of organizational criteria for CSP selection, in addition to selection criteria for
  – functional requirements
  – quality of service (QoS) and
  – cost

• A model for the relation between the four types of criteria

• A recommendation on integrating these criteria into the CSP selection process