CONCEPT

- Develop an open-source platform that enables applications to negotiate Cloud services as requested by their users.
- Component-based applications will specify their requirements and communicate them to the platform via an API and using a Cloud ontology.
- Implement a multi-agent brokering mechanism that will search for services matching the applications’ request, and possibly compose the requested service if no direct hit is found.
- Facilitate competition between Cloud providers, who, in return, will be able to reach customers they could not reach before.

Open-Source API and Platform for Multiple Clouds

February 2011: Architecture and Cloud Usage Patterns
August 2011: 1st API implementation and framework
February 2012: 2nd API implementation and platform
August 2012: Platform available
February 2013: Full software & proof-of-the-concept apps

USE CASES

Data Intensive
- Storage and data distribution in Earth Observation
- Earth Observation mission reprocessing
- Routine production of Earth Observation products
- Fast data access for crisis situations
- Distributed intelligent maintenance

Compute
- Cloud-distributed parameter sweep
- Documents management
- Engineering problems

R&D

Design a language- and platform-agnostic API for using multi-Cloud resources and Cloud usage patterns.

Build an open-source and portable platform for using Cloud services.

Design a generic agent skeleton for representing various stake-holders, e.g. Cloud vendors.

Design user-centric SLAs, Cloud ontology & mechanisms for dynamic negotiation of resources based on multi-agent technologies & semantic data processing.

COLLABORATE

Inputs for Cloud ontology
Inputs for platform components like monitoring, billing, negotiations, VM management (open-source)
Test the API implementation and platform
Participate to the user forum
Bring new use cases
Offer your Cloud resources
Coordinated efforts for standardization and avoidance of vendor lock-in

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