



# *Approach proposal for competitive analysis*

Gathered by Patrick Moreau  
INRIA  
Software Assets Manager

[patrick.moreau@inria.fr](mailto:patrick.moreau@inria.fr)



# Introduction

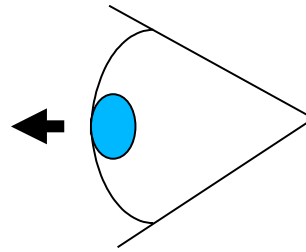
I am up to now alone on this part.



Collaborative work would be preferable for this important (essential?) task of the initiative

A complex analysis has to be done:

- deliverables: advice, recommendations, and finally a roadmap



## 3 proposals

To establish the motivation to adopt Open source solutions for Cloud

To perform a macroscopic comparison of OSCi stacks with cloud stacks

- open source
- non open source

To perform a brick by brick comparison of OSCi stacks with open source cloud stacks

- “If we don’t want that OSCi results look like Frankenstein ...”

# Motivation for an OS solution

## To be completed (sub-task1)



From an user point of view

- data and Application Interoperability (freedom)
- data and Application Portability
- transparency / Privacy / Security

From a technology provider / integrator point of view

- confidentiality / security
- general consensus on reduction of costs and barriers to adoption
- open APIs for pragmatic reasons
- OSS and open standards

Proposal: to write a white paper

# macroscopic comparison of OSCi stacks



## Open source

- OpenNebula (to put in the radar)
- OpenStack (seems complementary)
- Eucalyptus: no more open source (open core)?
- Nimbus (?)
- Apache (RedHat)
- Open cloud.org (IBM being the leader)
- Rackspace
- Other of interest?

## Non open source

- Amazon
- Google
- Amazon EC2,
- GoGrid
- Amazon S3
- Nirvanix
- Linode
- other of interest?

## **Criteria To be completed (sub-task2)**

Confidentiality . Security

- cryptography, traceability
- end to end security

SLA commitments

- quality, continuity of services, SLA management

Access right management

Scalable data base

Compatibility with standards

- OCCI (open cloud computing interface), OVF (Open virtualization format), Nessi

Deployment

- service deployment

Management and orchestration

Service billing

Energy savings

## **Brick by brick comparison**

This comparison has to be performed for each domain:

- Self-sizing & Green PaaS
- Interoperable & Distributed Services
- BI 4 Cloud
- Massively Distributed Clouds (less relevant)

For all of us, who provides bricks:

- How are we sure that what we provide is better than existing components?
  - What are the criterias of analysis?
  - what are the competitive features?

**To be completed (sub-task 3)**

# Brick by brick comparison

Libraries / APIs: [Deltacloud](#), [jCloud](#), [libvirt](#), [libCloud](#), ...

VM: [Abiquo](#), [Convirt](#), [KVM](#), [OpenVZ](#), [Qemu](#), [VirtualBox](#), [Xen](#), ...

Development: [JEE](#), [Eclipse](#), [POJO](#), [Spring](#), [Seam](#), [Struts](#), [GWT](#), [Groovy](#), [JRuby](#), [V8](#), ...

IaaS: [ControlTier](#), [Enomaly](#), [Eucalyptus](#), [OpenNebula](#), [NiftyName](#), [Nimbus](#),  
[OpenStack](#), [OpenQRM](#), [Puppet](#), [RabbitMQ](#), [Reservoir](#), [Traffic Server](#), [Ubuntu](#), ...

PaaS: [Appscale](#), [Gearman](#), [Heroku](#), [Joyent](#), [WaveMaker](#), ...

SaaS: [Coadunation](#), [Cornelios](#), [eyeOS](#), [Guacamol](#), [TioLive](#), ...

Deployment / Admin / Monitoring / Test: [Bitnami](#), [Capistrano](#), [CDT](#), [Cfengine](#), [Chef](#),  
[collectd](#), [Bcfg2](#), [Etics 2](#), [Fabric](#), [ganeti](#), [Maven](#), [Puppet](#), [Zenoss](#), ...

Storage and NO/SQL: [Cassandra](#), [CouchDB](#), [DRDB](#), [Drizzle](#), [Flare](#), [Memcached](#),  
[MongoDB](#), [Neopod](#), [XtreemFS](#), ...

File Systems: [CloudStore](#), [GlusterFS](#), [Gpfs](#), [Hdfs](#), [Pohmelfs](#), ...

Auto scalability: [Scalr](#), ...

Data processing: [Hadoop](#), [MapReduce](#), [Pig](#) [Zookeeper](#), ...

Green IT / Smart Grid: [Nedo](#), ...

Billing: [Jbilling](#), ...