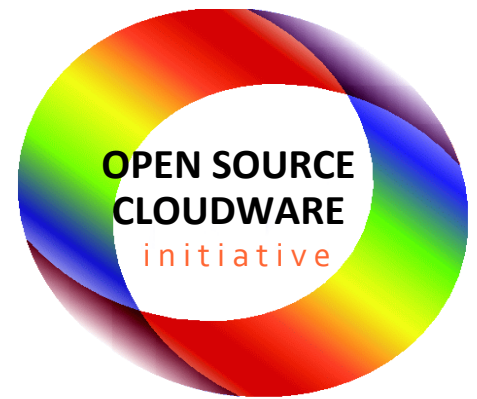




OW2
Consortium



***An initiative for
open and free cloud computing***

Jean-Pierre Laisné

jean-pierre.laisne at ow2 org

ICT2010 networking session

Research / Industry Collaboration on Open Source Cloud Middleware

Tuesday 28 September 2010, Brussels





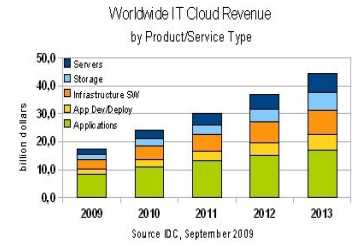
OW2 in top-4 global open source organizations with diversified code



Cloud computing is a long-term business opportunity



- Diversified-code organizations
- Product line organizations
- Technology-oriented communities
- Legal resources organizations
- Standards organizations
- Advocacy and lobbying organizations



Five-year annual growth rate of 26 percent--over six times the rate of traditional IT offerings.

- A disruptive innovation driven by two key industry trends
 - Commoditized enterprise IT: hardware, software and networks and standardized enterprise usage
 - New Internet-based IT usage: new economic models to absorb fluctuating or peak demands

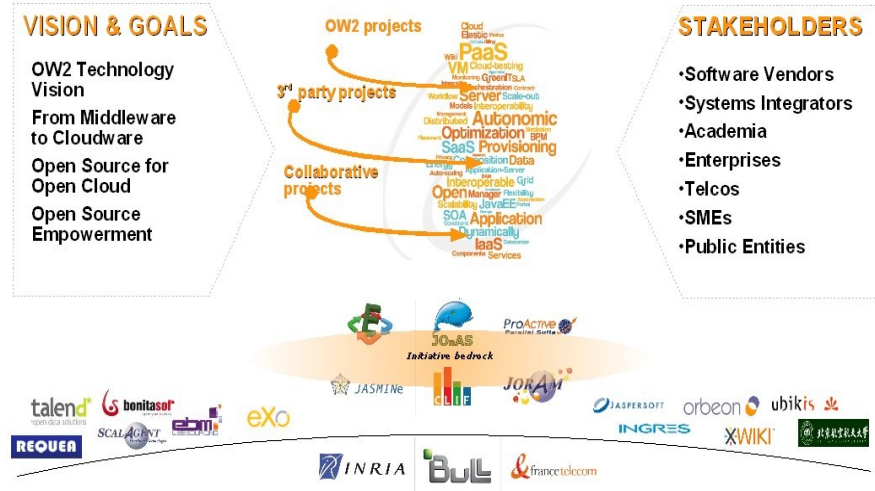


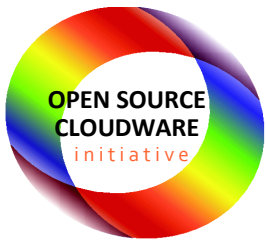
Free / open source software critical for cloud computing openness and freedom



OW2 Strategy: the Open Source Cloudware Initiative

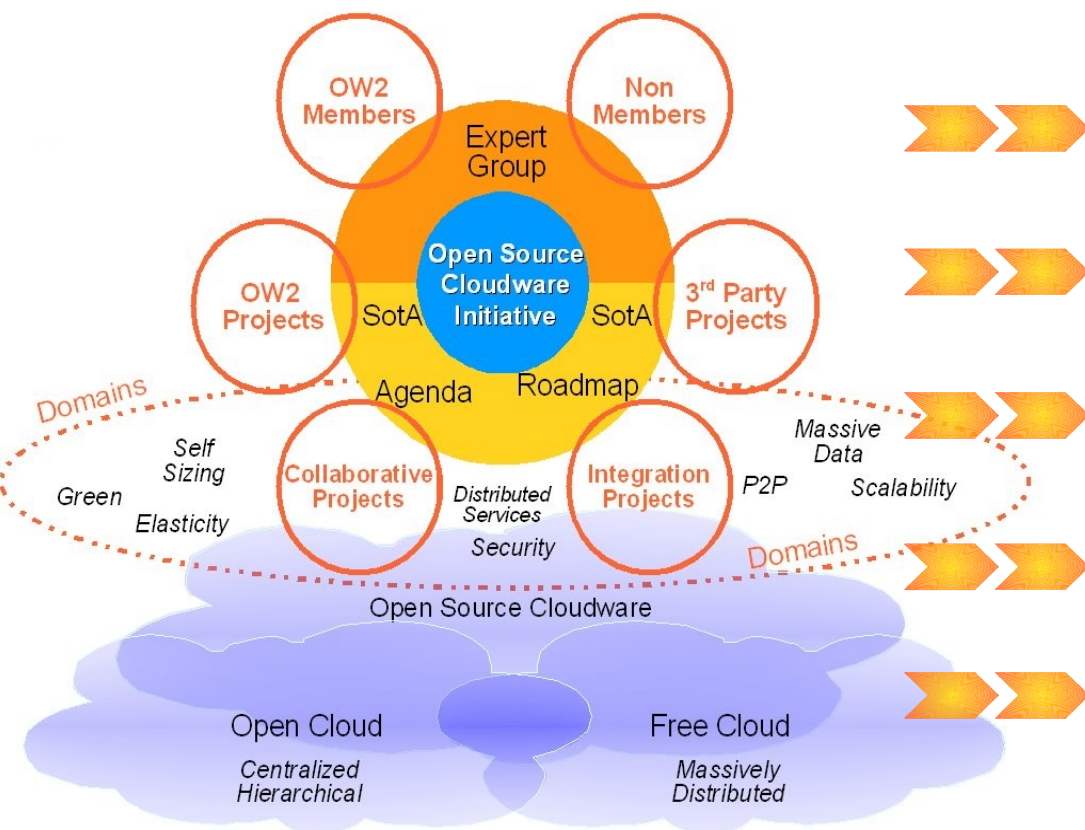
- While openness seems still a distant reality...
 - Different meanings
 - Proprietary core business
 - Few consensus on standards
 - ...Free / Open Source Software is now critical for Cloud Computing...
 - General consensus on reduction of costs and barriers to adoption
 - Open APIs for pragmatic reasons
 - F/OSS and open standards
 - ... but Cloud Computing is also a risk for F/OSS
 - Openness not dependant on software exclusively
-
- F/OSS Cloud momentum
 - Virtualization technologies: Xen, KVM, OpenVZ, VirtualBox, etc.
 - Cloud management: OpenNebula, Eucalyptus, Libcloud, OpenStack, etc.
 - Platform environment: Heroku, etc.
 - F/OSS a unique proposition for
 - Interoperability
 - Sovereignty
 - Transparency / Privacy / Security
 - De facto open standards
 - Sustainable ecosystems





How to address F/OS Cloudware Challenges

"There are different typologies of cloud and various challenges. Therefore one size can-not fit all"

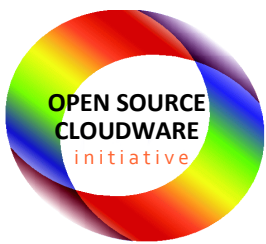


Open Source Cloudware for open cloud & free cloud

- 1 **Self-sizing & Green PaaS**
 - Improve overall platform efficiency
 - 2 **Interoperable Distributed Services**
 - Enable interoperability between heterogeneous service domains/clouds
 - 3 **BI 4 Cloud**
 - Provide BI capabilities for and over cloud
 - 4 **Massively Distributed Clouds**
 - Enable next generation cloud architecture
- More domains to be defined as the initiative grows*

SHORT TERM Work in Progress

LONG TERM Discussions in Progress



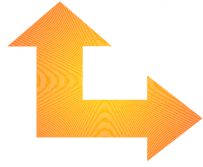
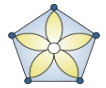
Collaboration Framework

3rd Party F/OSS

- Libraries / APIs: Delfacloud, 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, XtreamFS, ...
- File Systems: CloudStore, GlusterFS, Gpfs, Hdfs, Pohmelfs, ...
- Auto scalability: Scalr, ...
- Data processing: Hadoop, MapReduce, Pig, Zookeeper, ...
- Green IT / Smart Grid: Nedo, ...
- Billing: Jbilling, ...

Collaborative Projects

- 4Caast** (EU FP7) Bull, Bonitasoft, UCM
Jonas, Jasmine, Orchestra, Bonita, OpenNebula
- Choreos** (EU FP7) [PetalsLink](#), USP, Inria, **OW2**
Petals
- Compatible One** (FR FUI10) Inria, Bull, Institut Telecom, xWiki, **OW2**
Jonas, Jasmine, ProActive, Entropy 3rd party projects
- EASI-Clouds** (EU EUREKA) Bull
Jonas
- InternetWare** (PRC 863) PKU
Jonas, Jasmine,
- OSAMI** (EU EUREKA) Large European consortium led by [Telvent](#) with Bull, Eteration
Jonas, Easybeans, Jasmine, Eclipse WTP+STP
- PLAY** (EU FP7) [PetalsLink](#), INRIA, FT
Petals, ProActive
- SelfXL** (FR ANR) Bull, Inria, Ecoles Mines Nantes, FT
Jonas, Jasmine, Clif, ProActive, Entropy
- SOA4ALL** (EU FP7) [Petals Link](#), Inria
Petals, ProActive
- SocEDA** (FR ANR) [Petals Link](#), [ActiveEon](#), FT, Inria
Petals, ProActive
- Trustie** (PRC P863) Buaa, Nudt, Iscas, Pku, Cvic

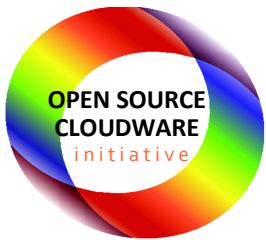


A business ecosystem at work

Academy, SMEs, Industry

- | | | |
|---------------------------|--------------------|-------------------------|
| ActiveEon | Ingres | Talend |
| Bonitasoft | Inria | Institut Telecom |
| Buaa | Iscas | Ucm |
| Bull | Jaspersoft | Unifor |
| Cohesive FT | Konsultex | Usp |
| Cvic | Neociclo | xWiki |
| Ecole Mines Nantes | Nudt | |
| Edifixio | O-Engine | |
| Engineering | Orange Labs | |
| Fraunhofer Fokus | Pku | |
| Funambol | Petals Link | |
| Gsia | | |





The issue is not merely technology

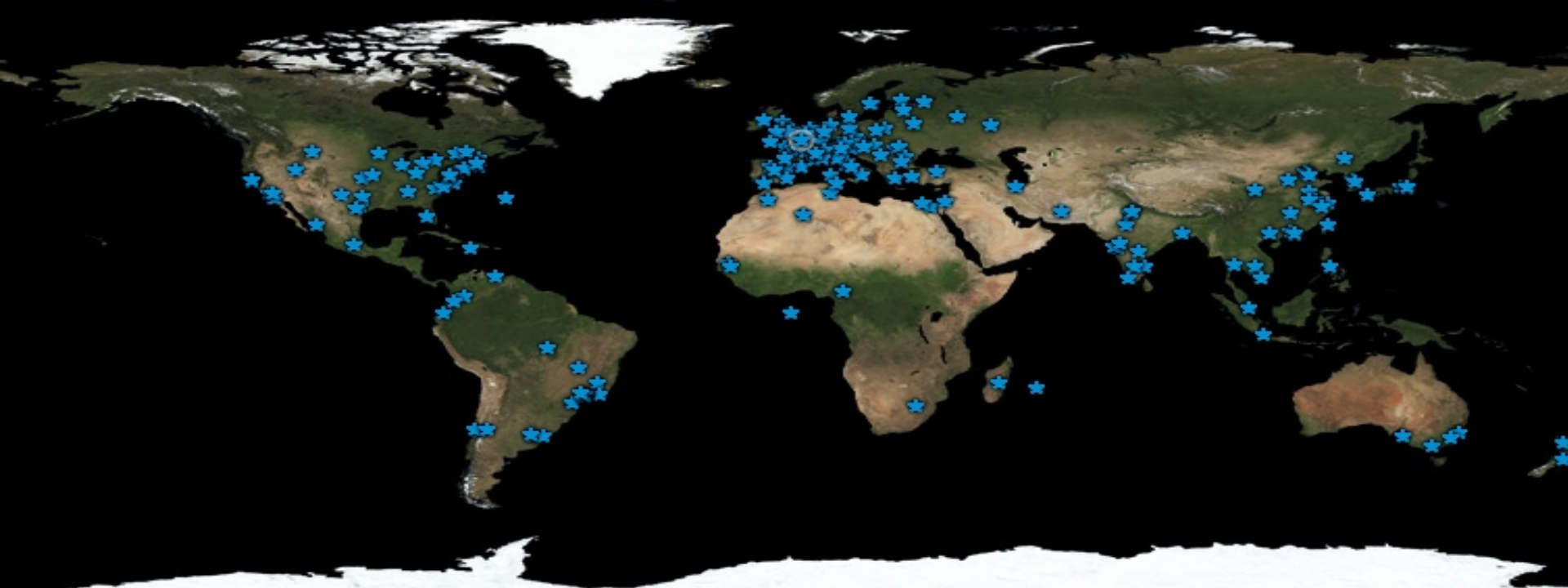
- ➔ Economic development policies, especially as they relate to education, procurement, and international trade, should recognize and promote the growth of intellectual capital of society (which is different than attempting to protect and control the ownership of intellectual property).
- ➔ Citizens of a digital society should always have the freedom to read, modify, and share the software and data that they, as a society, pay for.

"Fair cooperation and trading can lead to far better economic outcomes than compete-at-all-costs models that depend on exclusion as a prerequisite for profit"

"The open cloud movement will become one of those activities whose very business rests upon enabling customers to leave it."

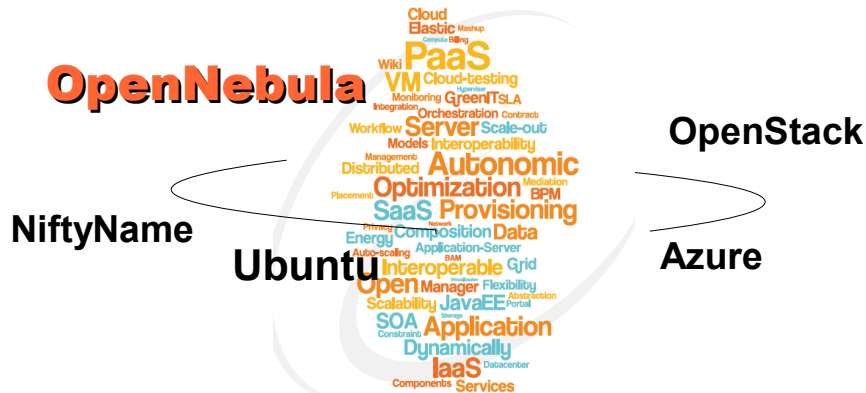
- ➔ Europe should ensure effective protection for network neutrality that ensures equitable treatment of decentralized web services by prohibiting and sanctioning discrimination against protocols, applications, sources and contents.
- ➔ Europe should invest in the development of decentralized, user-controlled, free software-based web services for all essential social/collaborative applications and promote their usage.

*From 2020 FLOSS Roadmap (2010 version)
<http://2020flossroadmap.org>*



OW2 OSCi Outreach

www.ow2.org



*Enjoy the Technology!
...Join the Community!*



For more information
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