The OpenCloudware collaborative project

An Infrastructure platform for Building, Maintaining and Operating Enterprise Distributed Applications in the Cloud

Towards a PaaS management stack over multiple clouds

Alban Richard, UShareSoft CEO
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OpenCloudware

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Summary

The main way to “go cloud” has proved to be, for security and economic reasons, hybrid: mixing private with public.

Moving to Cloud Software Management then requires to manage the lifecycle of applications over different cloud providers: mask the heterogeneity; automate the deployment whatever the application technology and execution environment, etc.

This is what tackles OpenCloudware, which aims at enabling flexible multi-cloud applications thanks to a full automated think-build-run chain.
What is OpenCloudware?

- French collaborative research project
- Development of software modules for building a IaaS agnostic Dev to PaaS Enterprise Grade Infrastructure platform
- Enables to easily build, generate and operate enterprise distributed applications for deployment on any cloud
  - Their **Modeling, Assembly and Build**
  - Their **Deployment and Operation (PaaS)**
  - On **Multiple Infrastructure (Multi-IaaS)**
- 3 years (Jan 2012 – Dec 2014)
- Supported by the French FSN (Fonds National pour la Société Numérique), aka Grand Emprunt
OpenCloudware partners

- **Corporations**
  - Bull
  - Orange Labs
  - Thalès Com
  - Thalès Services

- **SMEs**
  - ActiveEon
  - eNovance
  - eXo Platform
  - Linagora
  - UShareSoft

- **Academic**
  - Armines/Ecole des Mines de Nantes
  - IRIT – INP Toulouse
  - Télécom Paris Tech
  - Télécom Saint Etienne
  - Univ. Joseph Fourier
  - Univ. Savoie - LISTIC
  - INRIA

- **Open Source organisation**
  - OW2
  - A consortium of 18 partners

[http://opencloudware.org](http://opencloudware.org)
One slide on UShareSoft

*Multi-OS*

Windows, Linux, SUSE, OpenStack, Joyent, OpenNebula, OpenStack, etc.

**UForge AppCenter**

Single Pane of Glass for Hybrid Cloud Workloads Management

**Factory**
- Full Stack Templating
- IT Solutions, Blueprints
- Lifecycle, Governance

**Migration**
- Import Live Server
- Migrate to Cloud
- Config Monitoring, Audit

**AppStore**
- Cloud Marketplace
- Enterprise IT Catalog
- Self-Service Portal

**Governance**
- Enterprise Workspace
- Control & Security
- Collaboration & Sharing

**Multi-Cloud**

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OpenCloudware Scope

- **3rd party build environment**
- **VM Building Services**
- **Self-Service Portal**
- **Service Plan Factory Services**
- **Image Gallery** *(BI, eGov, eHealth, eCommerce, load test, ...)*
- **PaaS Platform Multi-IaaS**
- **3rd party IaaS Cloud environment (incl. open source)**
- Other collaborative projects

**Application Templating**
OpenCloudware - building blocks

Self Service Build

OpenCloudware Self Service Portal
- Continuous Build
- Service Plan Builder
  - vApp Creation and Configuration
- Template Gallery
  - JavaEE, OSGi, LAMP, etc.

PaaS Layer
- PaaS Orchestration
  - vApp Deployment
- Self-Management
  - Runtime auto-adaptation
- Management Console
  - OpenCloudware and vApp administration

Multi IaaS Layer
- VM multi-IaaS Provisioning
- VM Placement
- Monitoring & Billing logs
- Multi-IaaS Controller / API
- Federation Proxis

Modeling
- End-to-End vApp Modeling
- MetaData Modeling Tools

Testing
- Performance / Load Testing
- As A Service

Billing
- Aggregated Multi-IaaS Resource Accounting

IaaS Provider 1
- Open Source
IaaS Provider 2
- Commercial
IaaS Provider n
- Any Other

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Technologies for OpenCloudware

- OpenCloudware Open Source Projects
  - Portal: eXo
  - Security: AuthzForce
  - PaaS: JOnAS, JASMINe, Petals, JORAM
  - Performance: CLIF
  - Multi-IaaS: Sirocco, ProActive, Entropy

- Use of other open source software
  - Hudson, Maven, Jenkins, sunxaclm ...

- UShareSoft's UForge for cloud image template Mgt. & VM generation
Contacts

Industry leaders and innovative SMEs / SaaS solution providers

A consortium of 18 partners

http://opencloudware.org

Open source community management
OpenCloudware
Q&A

Enterprise PaaS to Multi-IaaS

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