

### VENUS-C.Interoperable Toolkit. v2.0

Kanchanna Ramasamy Balraj & Gian Uberto Lauri

Engineering Ingegneria Informatica Spa, Rome, Italy



#### Motivation, Problem area

- Need for open, interoperable cloud
- Need for Integration of cloud standards OCCI, OVF

Ease of horizontal scaling of infrastructure services

 Ease of migration of infrastructure services across heterogeneous clouds



# Objectives of the research

 Provide an interface based on standards to manage OpenNebula virtual resources

 Provide a standard packaging and distribution format for OpenNebula virtual infrastructure deployments

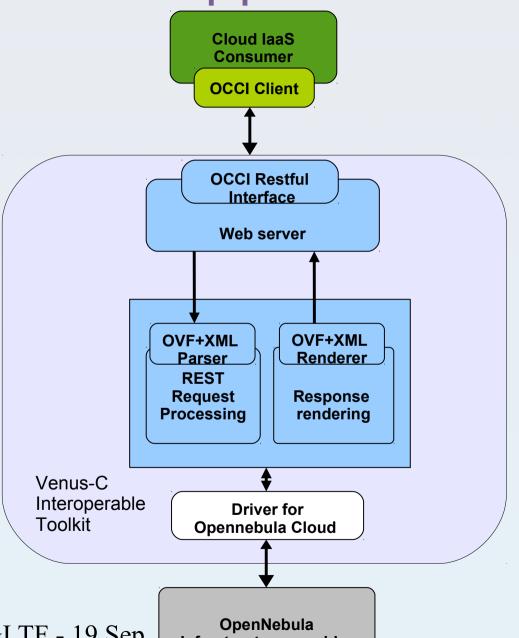
Integration of cloud standards



#### Research approach

 VENUS-C.Interoperable Toolkit provides a RESTful OCCI interface to OpenNebula OCA cloud interface.

 It allows OVF format for packaging and distribution of virtual appliances

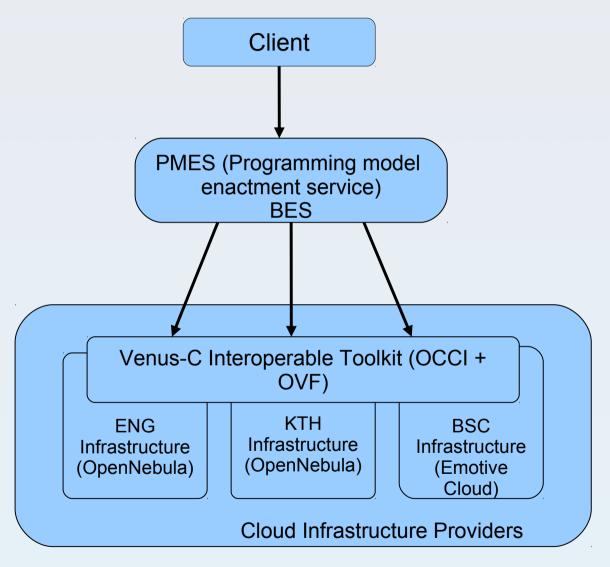


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Infrastructure provider



## VENUS-C Interoperable scenario





### Major outcomes

- OCCI interface that accepts rendering in OVF format for OpenNebula
- Standards based management interface for OpenNebula laaS offerings
- Facilitates scaling, migration of services across OpenNebula and other cloud infrastructures (allows a single client to contact an unified interface at ENG and KTH infrastructures)



### OpenNebula ecosystem

VENUS-C.Interoperable Toolkit has been contributed to OpenNebula ecosystem and has been tested with OpenNebula versions: 2.2 and 3.4

**URL**:

http://opennebula.org/software:ecosystem:ovf4one



## VENUS-C Interoperable Toolkit- Timeline

#### Releases:

January 2012 - Release 1

June 2012 - Release 2

#### **Future Direction:**

Implement full support for OVF Specification ver 1.1

Extend the framework to support other major Cloud providers like OpenStack etc

Authentication based on username/password



### Questions?

#### Thank you