

Session on Collaboration between the EGEE and RESERVOIR projects
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Introduction and State of the Collaboration between RESERVOIR and EGEE



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EGEE-III (Enabling Grids for E-science)

- **European largest grid project**
- **Provides a computing support infrastructure** for over 10,000 researchers world-wide, from fields as diverse as high energy physics, earth and life sciences

RESERVOIR (Resources and Services Virtualization without Barriers)

- **Flagship of cloud computing research in FP7**
- **Develops the open source technology** to enable deployment and management of complex IT services across different administrative domains
- 36 months (Feb 2008-Jan 2011) and 17,300 Keuros project
- Coordinated by IBM with participation of Telefónica I+D, University College of London, Umea University, SAP, Thales, Sun Microsystems, **ElsagDatamat**, **Universidad Complutense**, CETIC, University of Lugano, University of Messina, and **Trust-IT** OGF Europe

Objectives

- To evaluate the **RESERVOIR technology for VM management and infrastructure cloud computing** in the following scenarios
 - Dynamic Provisioning of EGEE Site Worker Nodes
 - Expanding the Computing Capacity of a EGEE Site using Cloud resources
 - Deployment of a Virtualized EGEE Site to a Public Cloud

Framework

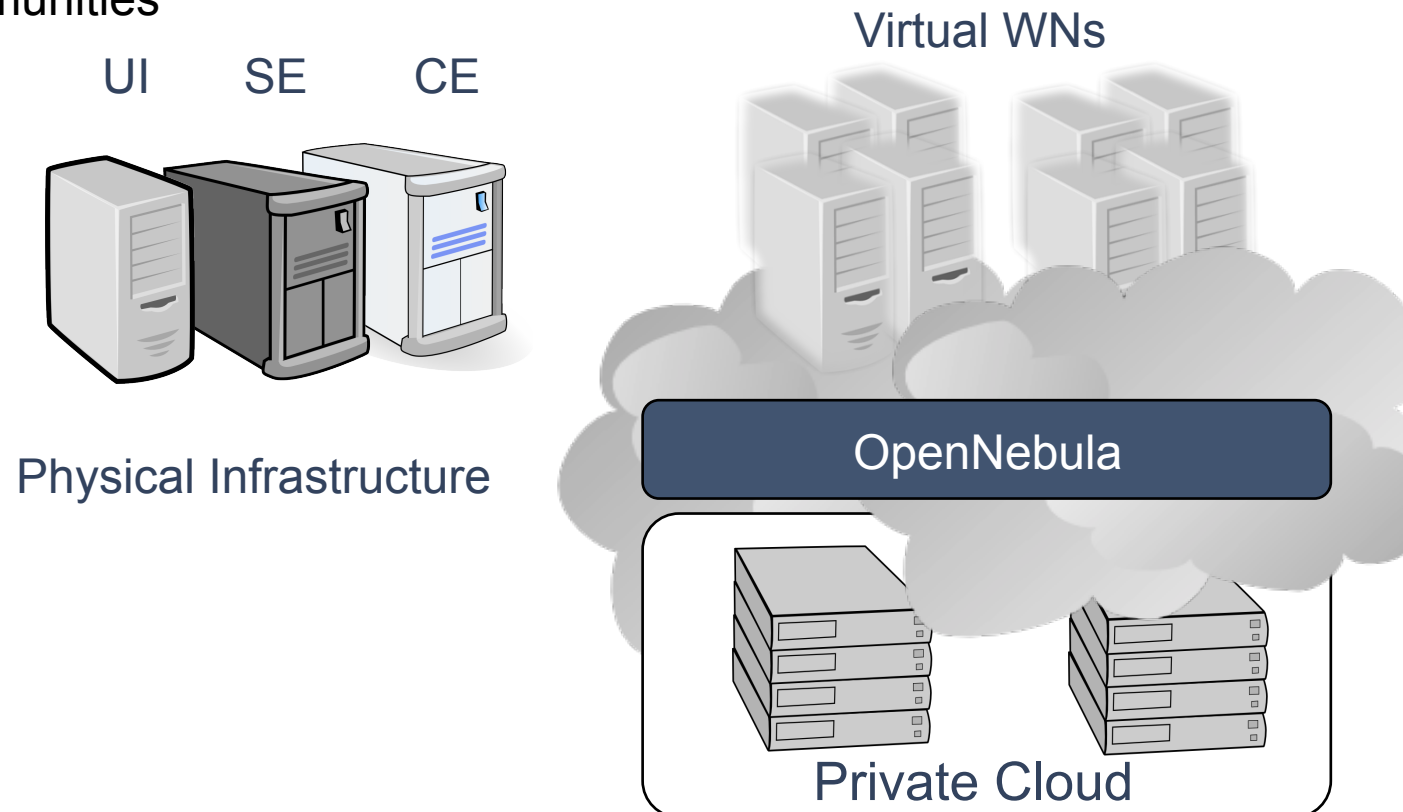
- **EGEE sites:** TCD and CERN
- **User communities:** HEP experiment (CERN) and StratusLab (CNRS/LAL and GRNET)

Partners

- **EGEE:** CERN, CNRS, GRNET and TCD
- **RESERVOIR:** UCM, UniMe, ElsigDatamat, CETIC, Trust-IT and Sun Microsystems

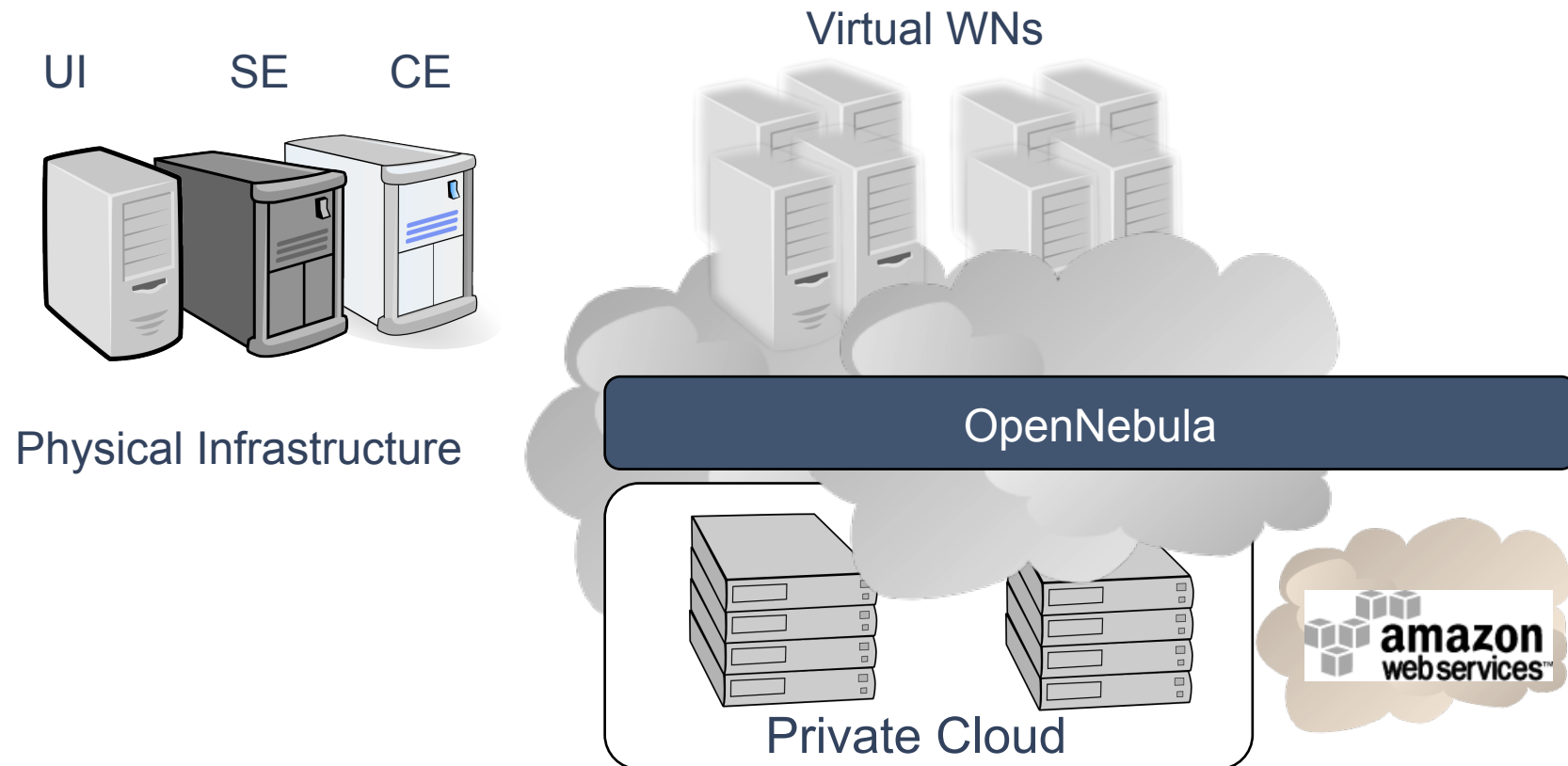
A.1. Dynamic Provisioning of EGEE Site Worker Nodes

- **Aim:** Evaluation of scalability and reliability of Private Cloud Deployment for provisioning of virtual Worker Nodes
- **Main Benefit to be Evaluated:** Fast provision of WN configurations for different communities



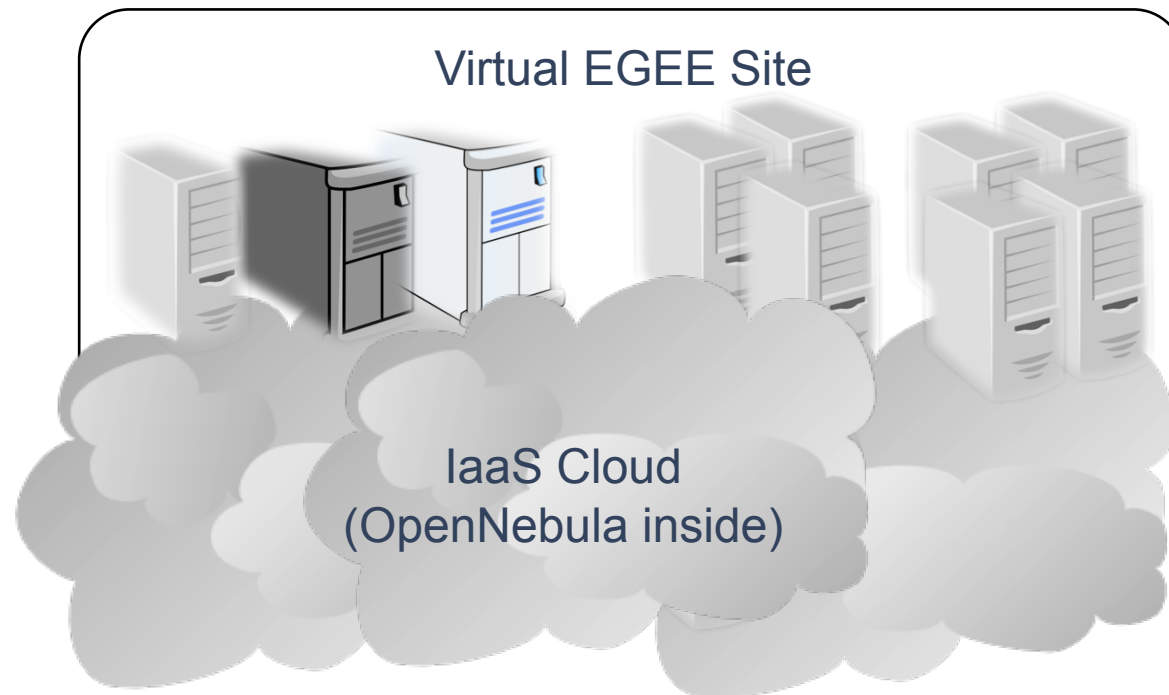
A.2. Expanding the Computing Capacity of a EGEE Site

- **Aim:** Evaluation of Hybrid Cloud Model with the combination of Private Infrastructure with Cloud Resources to meet a peak demand
- **Main Benefit to be Evaluated:** Elasticity of the site computing infrastructure



A.3. Deployment of a Virtualized EGEE Site to a Public Cloud

- **Aim:** Evaluation of Public Cloud Model for the operation of a full virtualized EGEE site
- **Main Benefit to be Evaluated:** Fast delivery and elasticity of EGEE sites



Aim

- Present the Memorandum of Understanding between RESERVOIR and EGEE and show the state of its activities

Agenda

- **Introduction and state of the collaboration between EGEE and RESERVOIR** (Ignacio M. Llorente, UCM, RESERVOIR) - 10 minute
- **OpenNebula/RESERVOIR Open-source Toolkit to Build Private, Hybrid and Public Clouds** (Ruben.S Montero, UCM, RESERVOIR) - 10 minutes
- **Evaluation of OpenNebula/RESERVOIR to Virtualize Batch Execution in EGEE Sites** (Ulrich Schwickerath, CERN, EGEE) - 10 minutes
- **Deploying a Virtualised EGEE Resource site to a Cloud Infrastructure** (Cal Loomis, CNRS, StratusLab) - 10 minutes
- **Questions, summary and next steps** - 20 minutes