The Future of Cloud Computing
Taormina, Italy
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OpenNebula
Enabling Technologies for Cloud Computing

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Acknowledgments

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Contents

OpenNebula – Leading Innovation in Cloud Computing Management

What is OpenNebula?

Open-source Toolkit to Build your IaaS Cloud

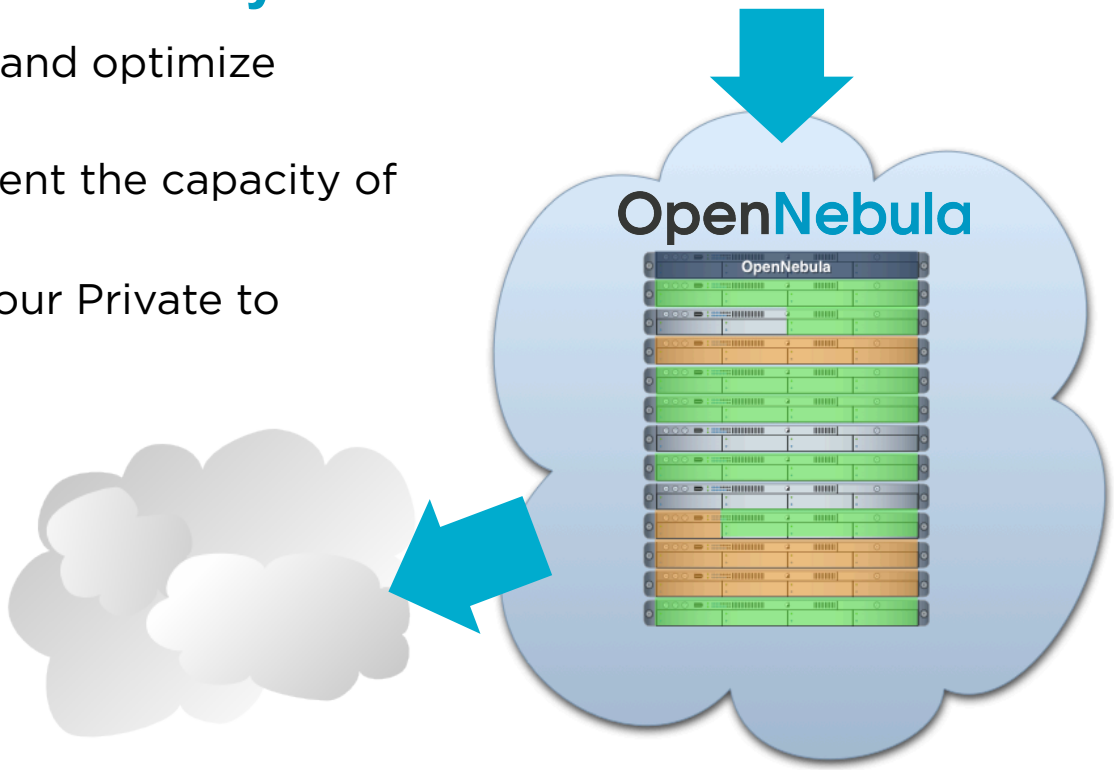
IaaS Cloud Provider

- Simple web interface
- Raw infrastructure resources
- Pay-as-you-go & elastic capacity

GoGrid, rackspace HOSTING, flexiscale™, amazon web services™

Enabling Technology to Build your Cloud

- **Private Cloud** to simplify and optimize internal operations
- **Hybrid Cloud** to supplement the capacity of the Private Cloud
- **Public Cloud** to expose your Private to external users



What is our Vision?

Cloud as an Evolution of the Data Center

Constraints from Existing Infrastructure and Processes

Requirements from Usage and Deployment Scenarios

What is the Innovation in OpenNebula?

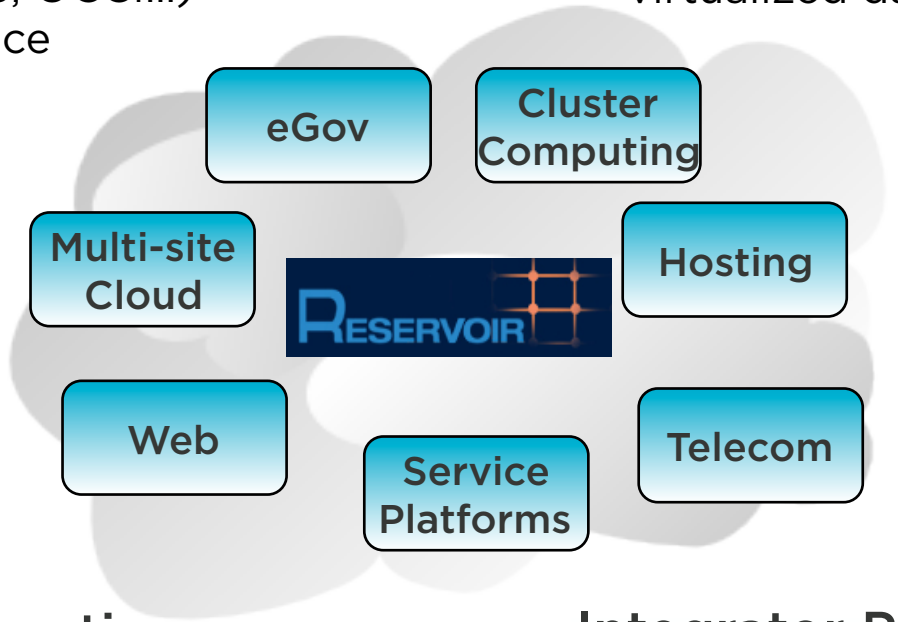
Unique Features to Address Requirements from Business Use Cases

User Perspective

- Multi-tier services with capacity/ placement constraints
- Leverage existing cloud ecosystem (AWS, OCCI...)
- Graphical interface

Management Perspective

- Massively scalable
- Stable, robust and secure
- Comprehensive management of virtualized data center



Business Perspective

- Hybrid cloud computing and federation
- Hypervisor independence

Integrator Perspective

- Fully open, standard-based, adaptable and portable
- Fit into any existing data center

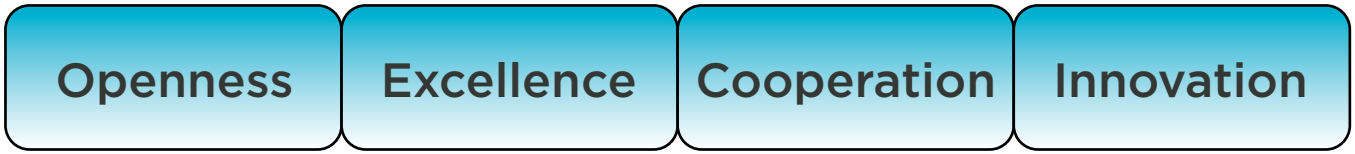
What is the OpenNebula Open-Source Project?

Building the Industry Standard Open Source Cloud Computing Tool

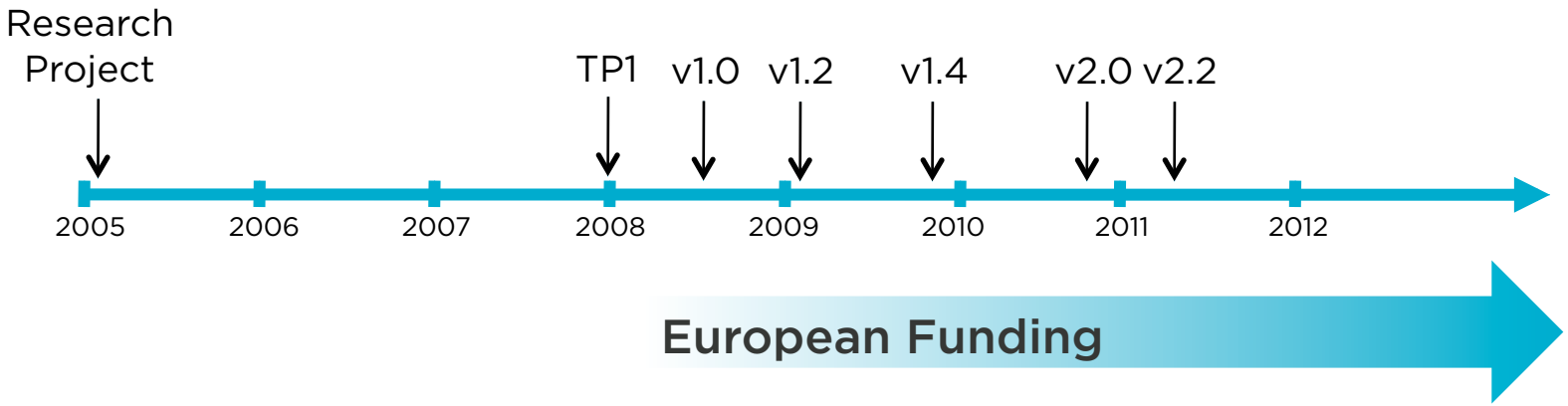
Lead Innovation in Enterprise-Class Cloud Computing Management

- Develop OpenNebula, the most-advanced, highly-scalable and adaptable software toolkit and assure its stability and quality
- Collaborate with open-source and research projects and communities, and the most demanding users
- Support the ecosystem and the community of users and developers

Core Values



From a Research Project on Scalable Management of VMs



Who Make Up our Community?

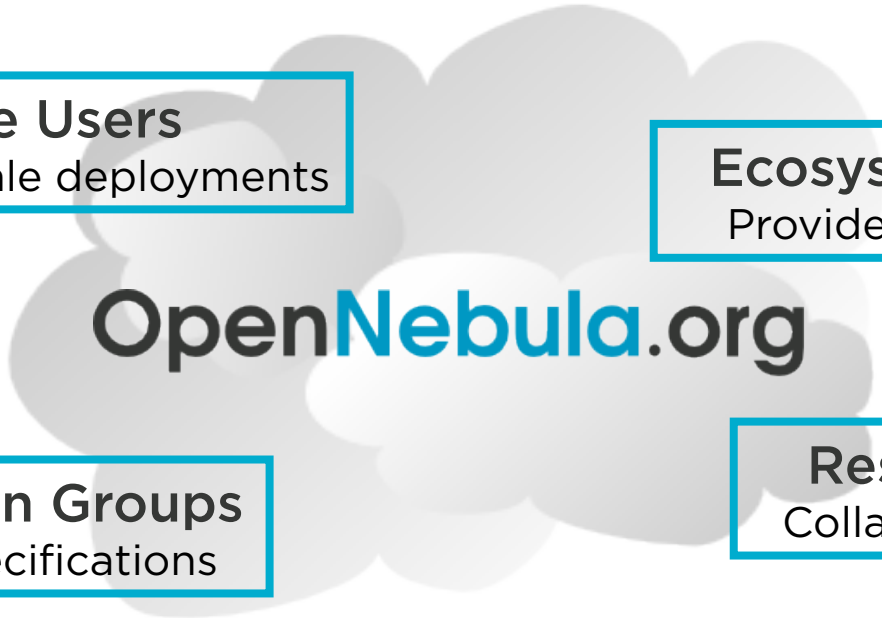
An Active and Engaged Community

Users
Provide feedback

Developers
Test the development versions
Develop bug fixes and enhancements

Reference Users
Host very large scale deployments

Ecosystem Contributors
Provide tools and extensions



Standardization Groups
Provide open specifications

Research Projects
Collaborate in innovation

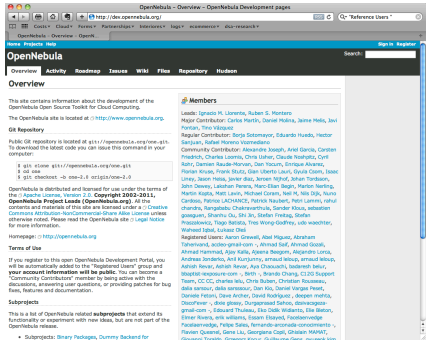
Sponsors
Allocate or found resources

Open-source Iniciatives
Integration to create complete solutions

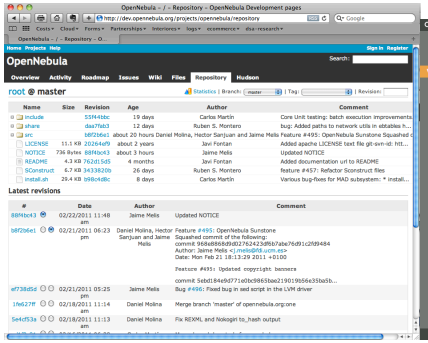
How Do We Support our Community?

Our Instruments to Help you to Help us

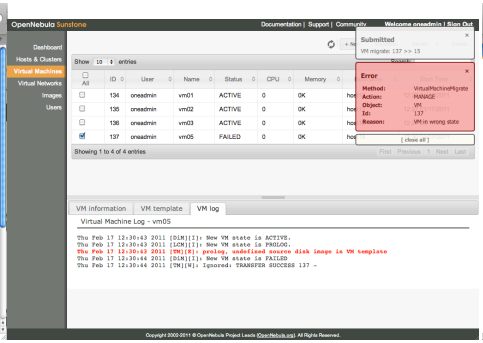
Development



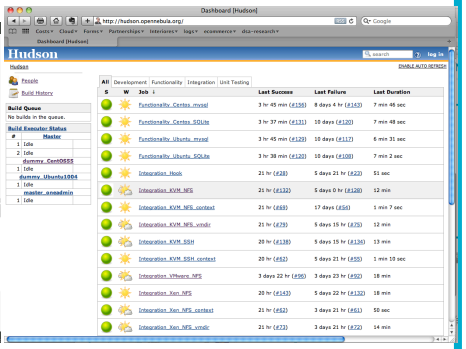
Dev. Infrastructure



Repository

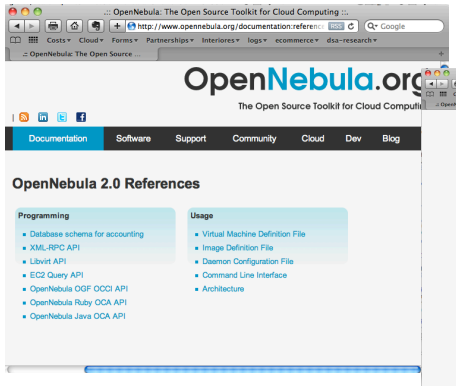


Cloud

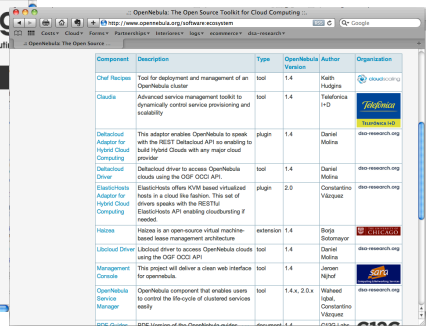


Testing

Ecosystem and Integrators



Documentation



Catalog

Support

Mailing

Tutorial

Who Uses OpenNebula?

Organizations Building Clouds for Development, Testing and Production

3,000 Downloads/Month

esa esac european space astronomy centre

CERN

中国移动通信 CHINA MOBILE

sara Computing & Networking Services

SURF NET

Orion VM .com.au

CENTRE DE SUPERCOMPUTACIÓ DE CATALUNYA CESCA

Telefónica Investigación y Desarrollo

CESGA

NIKHEF

NCHC

CRS4

Linux Distributions

ubuntu

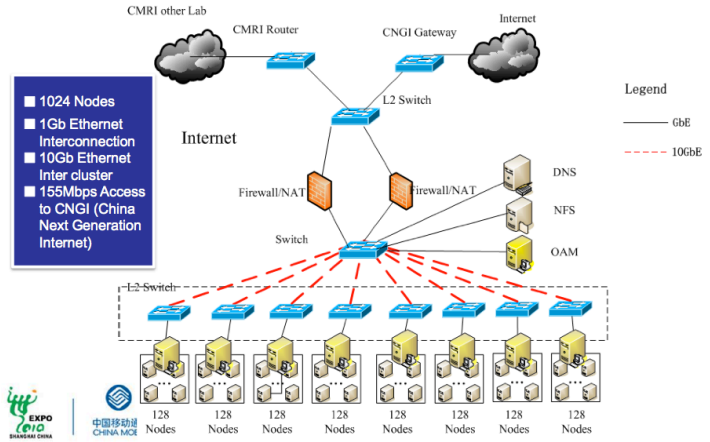
debian

openSUSE

Private Cloud to Support the Batch Farm

Cloud for Internal Operations and to Explore new Models

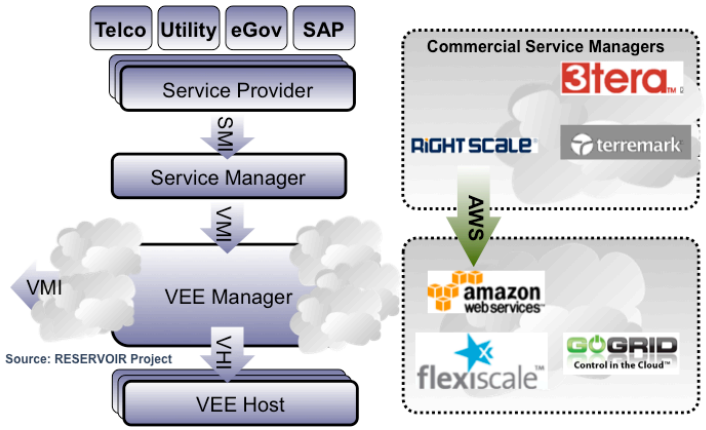
中國移動有限公司 CHINA MOBILE LIMITED



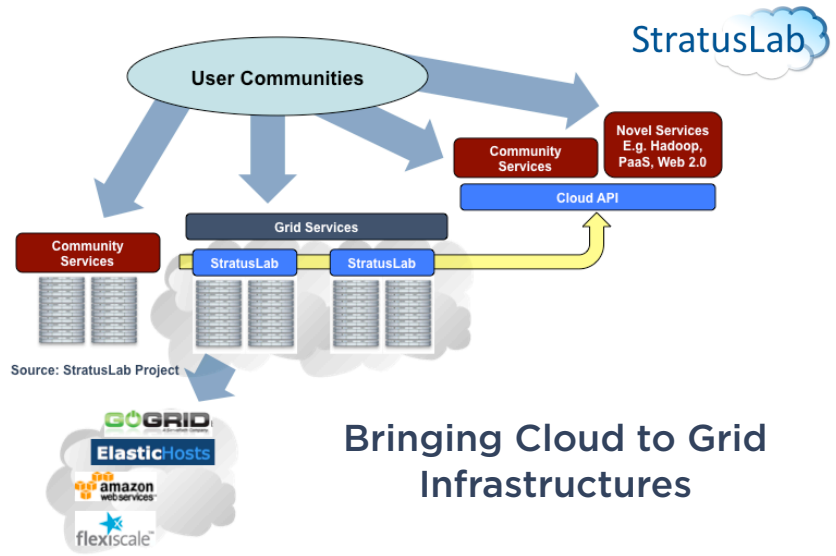
Reference Open Stack for Cloud Computing

International Projects Building an Open Cloud Ecosystem Around OpenNebula

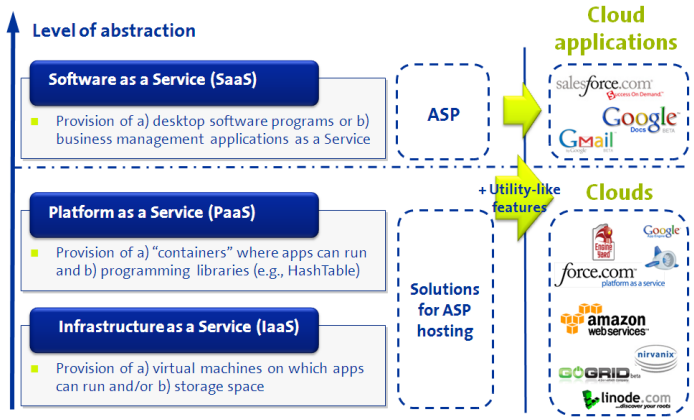
Developing an Open Stack for IaaS Clouds



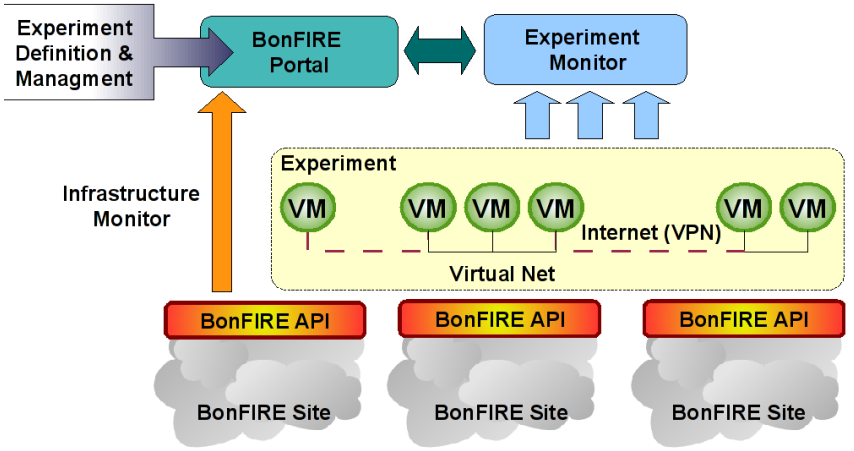
Bringing Cloud to Grid Infrastructures



Developing an Open Stack for PaaS Clouds



Building Service Multi-site Testbeds



Questions?

We Will Be Happy to Answer Any Question