The EGI Federated Cloud, using standards to create a fair and open European Cloud marketplace

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Objectives:

– Identify and investigate the capabilities needed to federate clouds
  • Be technology and provider agnostic
  • Promote adoption of documented open standard interfaces
  • Establish best practices and document
  • Investigate available business models & Service Level Descriptions

– Identify the technical solutions, deploy proof of concepts in a pre-production testbed, test the solutions with real use cases
  • Integrate the cloud services with the EGI core platform

Capabilities

1. Manage VM instances
2. Data access/transfer interface
3. Cloud service information federation
4. Resource consumption management
5. Cloud service availability
6. Notification & Automation
7. Federated AAI
8. VM Image Management
9. Brokering
10. Contextualisation
11. SLA & Business Models
Participation – Feb 2014

Members
- 142 individuals
- ~37 institutions
- 20 countries (EU & non-EU)

Stakeholders
- 23 Resource Providers
  - 13 production
  - 10 Certified
- 10 Technology Providers
- 10 User Communities
- 4 Liaisons

Technologies
- OpenNebula,
- StratusLab*,
- OpenStack,
- Synnefo,
- Cloudstack,
- PERUN,
- SlipStream
- APEL
- GOCDB
EGI Core Platform

Services that federate and integrate any user facing functional service deployed in **production**

<table>
<thead>
<tr>
<th>Resource Registration &amp; Status Service</th>
<th>AAI</th>
<th>Service Monitoring &amp; Metrics Visualisation</th>
<th>Usage Accounting and reconciliation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Help and Support</td>
<td></td>
<td>Security Co-ordination</td>
<td>Training Availability and publicity</td>
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For e-Infrastructures & Research Infrastructures
Enabling an open ecosystem of services

EGI’s Cloud Infrastructure

EGI Cloud Infrastructure Platform

Providers Cloud Management Framework
(new one we don’t now about and don’t care about)

EGI Collaboration Tools

EGI Cloud Service Marketplace

OCCI
CDMI

VM Mgmt
Storage Mgmt

SAML
GLUE2
UR

Federated AAI
Service Discovery & Status
Monitoring
Accounting

www.egi.eu
EGI Vision

To support the digital European Research Area through a pan-European research infrastructure based on an open federation of reliable services that provide uniform access to computing and data resources provided by the public and private sector.

EGI federated Cloud capability vision

10M cores Cloud compute
1 EB Cloud storage

• Paving the way for a federated cloud in Europe
  – Established best practice
  – Open standards, open technology
  – Open membership, open processes
  – Open competition
  – Full production, May 2014
Thank you!

Questions?