GUOCCI
The Entryway to Federated Cloud for Small-scale Users

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CESNET

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Current state in open cloud computing

- Open Cloud Computing Interface (OCCI)
- Management API for cloud infrastructure
- Management of resources like VMs, networks, volumes ...
- Ruby and Java APIs,
- rOCCI cli
OCCI overview
Current state in open cloud computing

- EGI FedCloud
- Multiple cloud sites
- Different technologies (OpenStack, OpenNebula, Synnefo)
- Available through OCCI
- Appliance database - AppDB
Current work flow for small scale user

- Registration
- x509 credentials
- Search for site and appliance in AppDB
- Proxy-certificate retrieval (VOMS)
- rOCCI cli or Ruby/Java API
- Resource creation
- Resource access

... but you just wanted one or two VMs.
Goals

- Simplify access to OCCl resources
- Speed up simple tasks
- Maintain x509 authentication
- Visualize status of user resources

Better user experience
GUOCCI - Graphical User interface for OCCI

- Web based application
- Provide secure login
  - CI login
- Collect data from appdb
  - Sites, Appliances, Flavors
- Resource management with OCCI
  - Communication with site endpoints
  - Virtual machine management
Authentication

- CILOGON
- User chooses account to login with (google account, shibboleth etc.)
- Certificate manipulation handled by server
- No certificate is presented to end user
### Your Instances

<table>
<thead>
<tr>
<th>Instance</th>
<th>Flavour</th>
<th>Memory</th>
<th>CPU</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Imaginary instance</strong></td>
<td>Itsy-bitsy</td>
<td>1 MB</td>
<td>0.1</td>
<td>125.45.78.12</td>
</tr>
<tr>
<td><strong>MyVM</strong></td>
<td>Just enough</td>
<td>8 GB</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td><strong>Cloud instance</strong></td>
<td>ArchLinux</td>
<td></td>
<td>8</td>
<td></td>
</tr>
<tr>
<td><strong>Real instance</strong></td>
<td>CentOS 7</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

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**GUOCII**

@Chose Rodriguez

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RJ, BP, DB (CESNET)
<table>
<thead>
<tr>
<th>APPLIANCES</th>
<th>SITES</th>
<th>FLAVOURS</th>
<th>DETAILS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Ubuntu 16.04 LTS</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Debian 8</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Slackware</td>
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<tr>
<td></td>
<td></td>
<td>ArchLinux</td>
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<td>ScientificLinux 7</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>CentOS 7</td>
<td></td>
</tr>
<tr>
<td>Instance name</td>
<td>IMAGINARY CLOUD</td>
<td>JUST ENOUGH</td>
<td>DETAILS</td>
</tr>
<tr>
<td>---------------</td>
<td>-----------------</td>
<td>-------------</td>
<td>---------</td>
</tr>
<tr>
<td>MyVMName</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Public SSH Key

| chose.rodriguez@imaginary.cloud.cz | ssh-rsa AAAAB3NzaC1yc2EAAAADA... |
| chose.rodriguez@imaginary.cloud.cz | ssh-rsa AAAAB3NzaC1yc2EAAAADA... |
| chose.rodriguez@imaginary.cloud.cz | ssh-rsa AAAAB3NzaC1yc2EAAAADA... |

User Data

**Appliance:** Ubuntu 16.04 LTS

**Virtual organization:** imaginary_virtual_organization

**Site:** Imaginary cloud

**Endpoint:** https://imaginary.cloud.cz:1234

**Flavour:** Just enough

**Cpu:** 4

**Virtual Cpu:** 8

**Memory:** 8 GB
Current progress

- Proof of concept done
- Gui completed 80%
- Backend 50%

To do

- Finish integration of components
- Testing & debugging
- Deployment in the EGI Federated Cloud
Do you have any questions?

▶ ask NOW!
▶ ask us directly
  ▶ janca@cesnet.cz
  ▶ parak@cesnet.cz
▶ send your questions to cloud@metacentrum.cz