VOCE Status

Jan Kmuniček, Daniel Kouřil, Jiří Chudoba
CESNET, Czech Republic

www.eu-egee.org
• VOCE - Virtual Organization for Central Europe

  – Current status

  Ç provides a complete and independent grid infrastructure
  Ç officially registered as currently the one and only
    “Regional VO” for Central European region (see CIC portal)

  – Solutions provided

  Ç on-going work to interconnect VOCE with P-GRADE portal
  Ç flexible framework - CHARON system – is available
    for applications & jobs management (demo on Wednesday)
  Ç AFS installation available for easy integration with local
    national Grid projects (currently used on Czech farms & UI)
  Ç parallel execution support will be ready in very near future (weeks)
VOCE Status

• VOCE & specific activities
  
  - NA3 & NA4
    
    ß VOCE is an application generic virtual organization
    ß currently is used for computational chemistry, numerical computations, visualization, and astrophysics
    ß suitable for training purposes (especially after the P-GRADE portal interfacing)

  - SA1
    
    ß VOCE can serve as a test case for lightweight way of setting and running essential grid services in reasonable time
    ß utilization for setting up of new application-centric VOs (not necessarily in CE region only)

  - JRA1
    
    ß provides feedback for middleware developers especially for IT/CZ cluster
• Infrastructure elements overview

 Elementary infrastructure (WMS, CE, WNs, SE) fully functional and configured to accept users from CE

- **UI**: skurut4.cesnet.cz
- **MyProxy**: skurut3.cesnet.cz
- **RB**: skurut3.cesnet.cz
- **VOCE LDAP**: meta-ldap.cesnet.cz
- **VOCE VOMS**: odorn.ics.muni.cz
  (temporary solution for tests)
- **GENIUS portal**: https://skurut4.cesnet.cz/
  (uses GILDA MyProxy server)

- access to UI using GSISSH, UI account is created automatically after registration to VOCE
• **Infrastructure elements overview**

CE
- ce.grid.tuke.sk
- ce.polgrid.pl
- grid109.kfki.hu
- ares02.cyf-kr.edu.pl
- zeus02.cyf-kr.edu.pl
- skurut17.cesnet.cz
- ce.egee.man.poznan.pl

SE
- ce.grid.tuke.sk
- se.polgrid.pl
- grid100.kfki.hu
- ares03.cyf-kr.edu.pl
- zeus03.cyf-kr.edu.pl
- skurut18.cesnet.cz
- se1.egee.man.poznan.pl
## VOCE Status

**Summary of resources**

<table>
<thead>
<tr>
<th>Computing Element ID</th>
<th>Free Slots</th>
<th>Total Slots</th>
<th>Max Run</th>
<th>ERT</th>
</tr>
</thead>
<tbody>
<tr>
<td>grid105.kfti.hu:2119/jobmanager-lcgcondor-lang</td>
<td>3</td>
<td>82</td>
<td>100</td>
<td>2-12:17</td>
</tr>
<tr>
<td>ares02.cyf-kr.edu.pl:2119/jobmanager-lcgpbs-voce</td>
<td>33</td>
<td>34</td>
<td>10</td>
<td>0:00:00</td>
</tr>
<tr>
<td>zeus02.cyf-kr.edu.pl:2119/jobmanager-lcgpbs-voce</td>
<td>16</td>
<td>76</td>
<td>10</td>
<td>0:00:00</td>
</tr>
<tr>
<td>ce.grid.tuke.sk:2119/jobmanager-lcgpbs-voce</td>
<td>9</td>
<td>9</td>
<td>21</td>
<td>0:00:00</td>
</tr>
<tr>
<td>ce.egee.man.poznan.pl:2119/jobmanager-lcgpbs-voce</td>
<td>115</td>
<td>115</td>
<td>0</td>
<td>0:00:00</td>
</tr>
<tr>
<td>skurut17.cesnet.cz:2119/jobmanager-lcgpbs-voce</td>
<td>19</td>
<td>44</td>
<td>0</td>
<td>0:00:00</td>
</tr>
</tbody>
</table>

- resources from
  - CESNET (Czech Republic)
  - PSNC, CYFRONET, ICM (Poland)
  - II-SAS (Slovakia)
  - KFKI (Hungary)
- 20 registered users from 10 institutes and 4 countries
- in total 539 CPUs, about 5.9 TB disk space
How many jobs were running at VOCE?

VOCE utilization in 2005

<table>
<thead>
<tr>
<th>Month</th>
<th>Number of jobs</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>1012</td>
</tr>
<tr>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>6</td>
<td>311</td>
</tr>
<tr>
<td>7</td>
<td>123</td>
</tr>
<tr>
<td>8</td>
<td>436</td>
</tr>
<tr>
<td>9</td>
<td>341</td>
</tr>
<tr>
<td>10</td>
<td>913</td>
</tr>
</tbody>
</table>
How were CPUs utilized by the jobs?

- number of jobs sent through RB skurut3.cesnet.cz
- other jobs were sent directly to CE using globus-job-run
Reliability testing

- **200 simple jobs sent to random CE**

  15.8. 150 jobs OK 50 aborted
  22.8. 200 jobs OK 0 aborted
  05.10. 200 jobs OK 0 aborted
  21.10. 200 jobs OK 0 aborted

- **Jobs distribution based on CE**

<p>| 15.8. | 22.8. |</p>
<table>
<thead>
<tr>
<th>site</th>
<th>jobs OK</th>
<th>site</th>
<th>jobs OK</th>
</tr>
</thead>
<tbody>
<tr>
<td>skurut</td>
<td>34</td>
<td>zeus02</td>
<td>92</td>
</tr>
<tr>
<td>cyf-kr.edu.pl</td>
<td>34</td>
<td>skurut</td>
<td>56</td>
</tr>
<tr>
<td>polgrid</td>
<td>34</td>
<td>ce.grid.tuke</td>
<td>44</td>
</tr>
<tr>
<td>grid.tuke.sk</td>
<td>48</td>
<td>grid109.kfki.hu</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>150</td>
<td></td>
<td>200</td>
</tr>
</tbody>
</table>

  site    | jobs aborted | site    | jobs aborted |
 ---------|--------------|---------|--------------|
  zeus13  | 50           |         | 0            |
**VOCE Status**

- **VOCE summary**
  - User registration
  - Documentation
  - Request tracking
    - Send requests to voce@cesnet.cz