Delegated resource allocation for Batch

CERN openlab Summer Students Lightning Talk Sessions

Ties de Kock
Batch processing
Configuring the capacity: LSFweb

Batch Capacity

CMS

CMS Phys
(… KSI2k)

CMS
(16500 KSI2k)

……

CMS Grid
(… %)

CMS Prd
(… %)

CMS Priority
(… %)

……

……
New requirements

› Multiple types of *resources*
› Single sign-on
› E-groups
Cloudman

[Image of Cloudman portal]

*Projects managed by you: batch LSF*

*Groups managed by you: admin, grid*

Change Log in this Resource Manager

Change Log (Total:10)

<table>
<thead>
<tr>
<th>Date</th>
<th>Event Name</th>
<th>Object</th>
<th>User Name</th>
<th>Comment</th>
<th>User</th>
</tr>
</thead>
</table>
| Aug. 14, 2014, 3:35 a.m. | epmup | epmupgroup | epmup | Scripts are missing no user | CLOUDMAN CERN SCRIPT  

[Image of Cloudman portal]

Projects Allocation List (Managed by you: 8 Total: 50)

<table>
<thead>
<tr>
<th>Name</th>
<th>Top Level Allocation Name</th>
<th>Project</th>
<th>Group</th>
<th>Capacity (HG) (TIA Pu%)</th>
<th>Memory (MB)</th>
<th>Processor (H) (TIA Pu%)</th>
<th>Storage (H) (TIA Pu%)</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALENH</td>
<td>batch public</td>
<td>ALENH</td>
<td>admin</td>
<td>1,000 (100.00%)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>X</td>
</tr>
<tr>
<td>ALICE</td>
<td>batch public</td>
<td>ALICE</td>
<td>alice</td>
<td>1,000 (100.00%)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>X</td>
</tr>
<tr>
<td>AMS</td>
<td>batch public</td>
<td>AMS</td>
<td>ams</td>
<td>251.000 (100.00%)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>X</td>
</tr>
<tr>
<td>ATLAS</td>
<td>batch public</td>
<td>ATLAS</td>
<td>atlas</td>
<td>15,009.800 (100.00%)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>X</td>
</tr>
<tr>
<td>ATLAS</td>
<td>public</td>
<td>ATLAS</td>
<td>atlas</td>
<td>0.000 (0%)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>X</td>
</tr>
<tr>
<td>C3</td>
<td>batch public</td>
<td>C3</td>
<td>c3</td>
<td>100.000 (100.00%)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>X</td>
</tr>
<tr>
<td>CAST</td>
<td>batch public</td>
<td>CAST</td>
<td>cast</td>
<td>50.000 (100.00%)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>X</td>
</tr>
<tr>
<td>CMS</td>
<td>batch public</td>
<td>CMS</td>
<td>ams</td>
<td>18,209.800 (72.64%)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>X</td>
</tr>
<tr>
<td>CMS</td>
<td>public</td>
<td>CMS</td>
<td>ams</td>
<td>0.001 (0%)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>X</td>
</tr>
<tr>
<td>COMPS</td>
<td>batch public</td>
<td>COMPS</td>
<td>compas</td>
<td>9,000,000 (100.00%)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>X</td>
</tr>
</tbody>
</table>
Tree Resource Allocation Project
Tree Resource Allocation Project

[Diagram showing relationships between Resource, Group, Allocation, and User with properties such as name, default mode, unit, amount, allocation mode, properties, username, full_name, email, and users: ['JBL', 'SCHWICKE'].]
Conclusions

- Evaluated the prototype of Cloudman
  - Decided to re-start with smaller scope

- Tree Resource Allocation Project
  - Minimal viable product
  - Smaller and more Generic

- …… “almost” done.