

Opportunistic usage of local computing resources : ideas to discuss



Summary

- Why considering opportunistic use of local resources?
- Possible solution
- Discussion





SUBATECH in short



- SUBATECH is a Joint Research Unit (UMR)
 - CNRS/IN2P3, Ecole des Mines, Nantes University
 - Over 200 staff including PHD students
 - IT service: 4 FTE (5 before, 1.3 for grid)
- Tier2 LCG-France , Alice VO only
 - 380 cores, 4700 SpecHEP06
 310 TB of storage (full)

http://www-subatech.in2p3.fr/en/

http://lcg.in2p3.fr/wiki/index.php/Tier_2:Subatech



Why considering opp.usage

- Funding is scarce
 - LCG-France gives only 70% of the necessary amount to renew (not to grow) resources.
 Until now the lab have found the missing 30%, but it cannot be considered granted
 - Applying for local funding from the Region Pays de la Loire but they will favor combined application and consolidation of data centers
 - That may be the only way to keep, renew or grow the resources offered to the Grid and/or to Alice



Case of a shared facility: Issues & Limitations

- We do not always master the environment :
 - Linux can be SUSE, Debian,32bits ... Windows :-)
- We cannot ask to install too specific things (or install in userland)
- Network bandwidth might be limited or shared with other users on the campus
- We cannot expect xrootd/EOS storage on site
- Remote facility (~8Kms from the lab)



We would need:

- Be able to start Job-Agents without installing a CREAM-CE on site
- Have a valid proxy for alien-token-init
- Middleware ?
 - what is the minimum required for a non-LCG site?
- Access to Alice Software
- A way to run only MC-production Jobs?



Possible solution

University or third-party DataCenter Proxy Renewal MyProxy Probe TaskQ **VOBOX** MonaLisa **Job Agent Factory Direct Submission** AliEn **Central Services** Sun Grid Engine GSI-ssh access for maintenance (or anything else) **UI in SUBATECH** Cluster **CVMFS RO Access to NFS Central Services RW Access to NFS** Datacenter Managed by Subatech



Details

- Need one production account in DataCenter
- Not necessarily whole-node scheduling
- No CE, no Grid site, not in GOC-DB, not in LCG/EGI, no LCG accounting, no SAM monitoring,... OK?
- Minimum usage of middleware (proxy only?)
- Vobox and CVMFS merged into one box ?
- Job Agent should not try to GLexec



Discussion

- Does it look feasable?
- Would it be supported by Alice ?
- 2nd VOBOX implies distinct AliEn site?
- What kind of agreements/policies to put in place?