



biomed VO Life Science Grid Con ongoing operational issues

EGI Technical Forum 2012 Franck Michel, Tristan Glatard CNRS



www.eqi.eu

19 Sept. 2012 EGI-InSPIRE RI-261323



Computing resources usage and priority issues

• Average waiting jobs/running jobs = 3.5

(source Gstat2)

- Possible causes?
- 2012 In higher prime

 - Variability in utilization rate of resources centres?

013

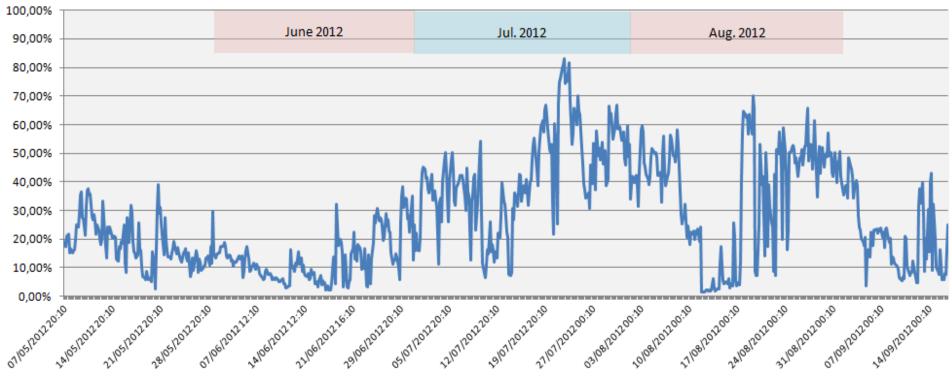
eΥ



- Better usage of resources
 - Analysis of Waiting/Running jobs continues
 - Promote the use of a DIRAC multi-VO instance (provided by french NGI)
 - Replanning functionality of WMS
 - VO-wide white list of resources
 - Inefficient applications: contacted users
- Increasing resources
 - EDGI has open 1 CE for biomed (3K to 4K cores)
 - 1 biomed-dedicated site being certified



- Analysis of the evolution of Waiting vs. Running jobs on all CE queues supporting biomed
- Average W/R=3.9 over last 12 months (GStat2)



Ratio R/(R+W)

19 Sept. 2012 EGI-InSPIRE RI-261323



Jobs scheduling, priorities...

- Ongoing work, need for per-CE measures
- Preliminary results:
 - 42% of queues with ratio < 50% (W>R)
 - 35% of queues with ratio >= 50% (R>=W)
- Outlined particular cases:
 - 22% of queues not used at all (W~0, R~0)
 - CE not working, does not fit with users' requirements, wrong capabilities published, black listed...
 - 24% of queues with jobs waiting forever (W>0, R~0)
 - Starvation in the queues, due to low priority?
- Realistic/feasible to give opportunistic VOs a minimum priority?



- User groups implement strategies to build white list of CEs that feed their job submission system
- GOCDB vs. BDII CE status: ongoing discussions to figure out if inconsistency between both is actually a problem
- 2 approaches:
 - Optimistic: assume that on most sites the BDII status can be reliably trusted, with the risk that a few jobs will fail when the status is wrong (considering this should be rare)
 - Pessimistic: VO-level approach, take into account any available information to build up a white list of CEs, with the risk of ignoring working CEs
- Decision still requires more inputs



- Ongoing discussion on how to deal with LFC/SE inconsistencies
 - Problems: zombies (aka. dark data), ghosts
 - SYNCAT (synchronization LFC/SE)
 - Prevents the creation of inconsistencies but not appropriate for curative solutions
 - No background research of inconsistencies
 - Investigation of LHC VOs existing solutions (LFC dumps, compare...)
- VO requirement to supporting sites: min. 1TB SEs
 - Dealing with full SEs = high operational cost
 - When a close SE is full, jobs efficiency will decrease



- LFC: WLCG plans to stop usage in 2013
 - LFC key component for LSGC VOs
 - LSGC willing to contribute to a join DPM/LFC community driven project
- Migration to EMI WNs
 - Test LSGC apps on EMI to be done: install of an EMI UI unsuccessful for now
 - Schedule for the migration of WNs to EMI: when? To which version?





LSGC wiki	http://lsgc.org/en/LSGC:home
Support team email	biomed-technical-support [at] googlegroups [dot] com
VO Manager email	biomed-vo-managers [at] googlegroups [dot] com
and the second s	



19 Sept. 2012 EGI-InSPIRE RI-261323