



GDB

# Introduction

*John Gordon, STFC  
GDB meeting @CERN July8th 2009*



# Since the Previous Meeting

GDB

- **STEP09**
- **HPDC, Munich**
  - Monitoring workshop
- **Virtualization and Multicore Workshop,**
  - CERN, June 24-26<sup>th</sup> 2009
- **ISC, Hamburg, June 23-26**
- **EGEE III 1<sup>st</sup> Review June 24-25**



# GDB meetings in 2009



- Second **Wednesday** of each month
- Last month we established that GDB could start at 0900, but agenda did not justify this month

- **August 12**
- September 9
- October 14
- November 11
- December 9





# Pre-GDB meetings

- Virtualisation
  - Many issues addressed by HEPiX and Application Workshop
- Remaining issue of the batch model
  - Do users send batch jobs to a virtual WN?
  - If so, who defines it? The VO, site, user?
  - Alternatively, could the VM image be a Dirac session?



# Forthcoming Events

- **Initial EGI Council Meeting**, Amsterdam, 9<sup>th</sup> July
- **STEP09** Post-Mortem, 9-10 July
- **ISC**, Hamburg, June 23-26
- **EGEE III 1<sup>st</sup> Review** June 24-25
- **LHC OPN**, Vancouver August 31
- **EGEE09**, Barcelona, September 21-25<sup>th</sup> 2009
- **HEPiX Fall Meeting**, NERSC, Berkeley, October 26-30
- **SC'09**, Portland, Oregon, November 16-20<sup>th</sup> 2009



# GDB Issues

GDB

- **Pilot Jobs, SCAS, gLExec**
- **CREAM**
- **EGI**
- **SL5**
- **Site Reliability**



# GDB

## Main Topics Today

- SL5
- STEP09 progress summary
- dCache Chimera migration
- SL5 for WN : follow-up from previous GDB and decision
- SCAS/glexec progress and status
- User analysis support



# EGI Timeline

- 2nd of June - The deadline for MoU comments (updated)
- 9th of June - The final MoU will be published
- 12th of June - deadline for comments on "Governance issues" document.
- 19th of June - Draft EGI.eu Convention and Statutes available
- 1st of July - deadline for MoU signatures (23 have signed)
- 9th of July - EGI Council initial meeting in Amsterdam
- August/September - EGI.eu Convention and Statutes approved
- 1st October - Financial contributions to EGI Collaboration due
- Oct 2009 - deadline for legal creation of EGI.eu by which time legal documents must be agreed by NGI legal authorities.





# EGI

GDB

- Interim Director and team proposing to Council:-
  - Bidding for Global Tasks
  - Estimates of International tasks
  - Outline proposals for FP7 calls.
- 
- EGI
  - EMI
  - SSC(s)



## Virtualisation Issues

### Batch model

- Do we need a paradigm shift? – Not clear yet. More experience is needed.
- Move to a cloud-style reservation scheme? – pointed out the difficulty by physicists to know what they need tomorrow.
- Infrastructure as a Service? – Yes.
- Scheduling is still required to decide where to run a VM
- Split resources between traditional batch and supplied VM images?
- Run a batch scheduler inside a cluster of VMs?

### Is CPU usage the right accounting model?

- Need to take account of memory, I/O, infrastructure (power etc), ...
- Wall clock time + charge factor per CPU?
- Slot time?



# Workshop Actions

## Follow up actions

1. **Transition of CernVM beyond the R&D phase.** We can distinguish two parts:
  - a) preparation of CernVM images (including CVMFS)
  - b) support for the infrastructure.We need to follow-up both a) and b) with IT and PH management.
2. **Test of 'parallel' jobs.** This can be done with existing infrastructure. ATLAS and WP8 should participate, in collaboration with IT/FIO, to understand the scheduling of parallel and sequential jobs on the same resources.
3. **Include the capability to run CernVM images** in the virtualized batch nodes initiatives at CERN and INFN .
4. **Prototype an 'Ixcloud' solution for submitting jobs using the EC2/Nimbus API** (i.e. prototype a solution which can interoperate with other clouds).
5. **Deploy multi-core performance and monitoring tools** (e.g. KSM, PERFMON) both at CERN and at other Grid sites.
6. **Investigate scenarios for reducing the need for public IP addresses** on WNs.
7. **Establish procedures for creating *trusted* images** (e.g. CernVM) acceptable for Grid sites (i.e. sites agree to run such images).
8. **Provide input to initiatives for running multi-core jobs Grid-wide** (requirements may be covered by the EGEE MPI WG recommendations)



# Other News

- LHC Schedule
  - Three weeks delay to Chamonix Schedule
  - More work on resistance before decision on energy
- LHCC Review
  - Straightforward, premature
- Scrutiny Group and Plec
  - LHCC Closed Session on

## Strategy for Start-Up

- ~3 weeks delay with respect to baseline due to
  - R-long and R-16 measurements
  - Splice repairs
  - Delay in cool down of S12 and repairs of splices
  - (Re-warming of S45)
- BUT the story of the copper stabilizers goes on
  - Need to measure the remaining sectors (S23, S78, and S81) ?at 80K
  - Need to understand the extrapolation of measurements at 80K to 300K
    - Measurement of variation of RRR with temperature
  - Need to gain confidence in the simulations for safe current
    - Compare different simulation models/codes