Relations with EU Middleware Projects

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- Some history and lessons learned from EDG project
- Looking to the future with EGEE
- Some immediate questions for EDG and LCG

Some history and lessons learned from EDG (from applications viewpoint)

- Implementation was already under way in Jan 2001 before applications produced requirements docs (short term use cases in April 2001 and long term specifications in Sep 2001). Natural thing to happen for a start-up, but don't do it next time round!
- The original architecture group produced some service specs but inter-service specs were incomplete. Applications did give input, but both communities were inexperienced... applications in thinking about grids, and middleware providers in dealing with applications!
  - New ATF works well..... applications play stronger role, and inter-WP problems get addressed (in fact maybe new architecture should not have such strong coupling between different service components? E.g. WP1/2, WP2/5)
- Needed more formal specification of user requirements
  - HEPCAL born in May 2002
  - Used in ATF work
  - Being used as a basis of WP8 evaluation of middleware (see D8.3 due April 1, 2003)

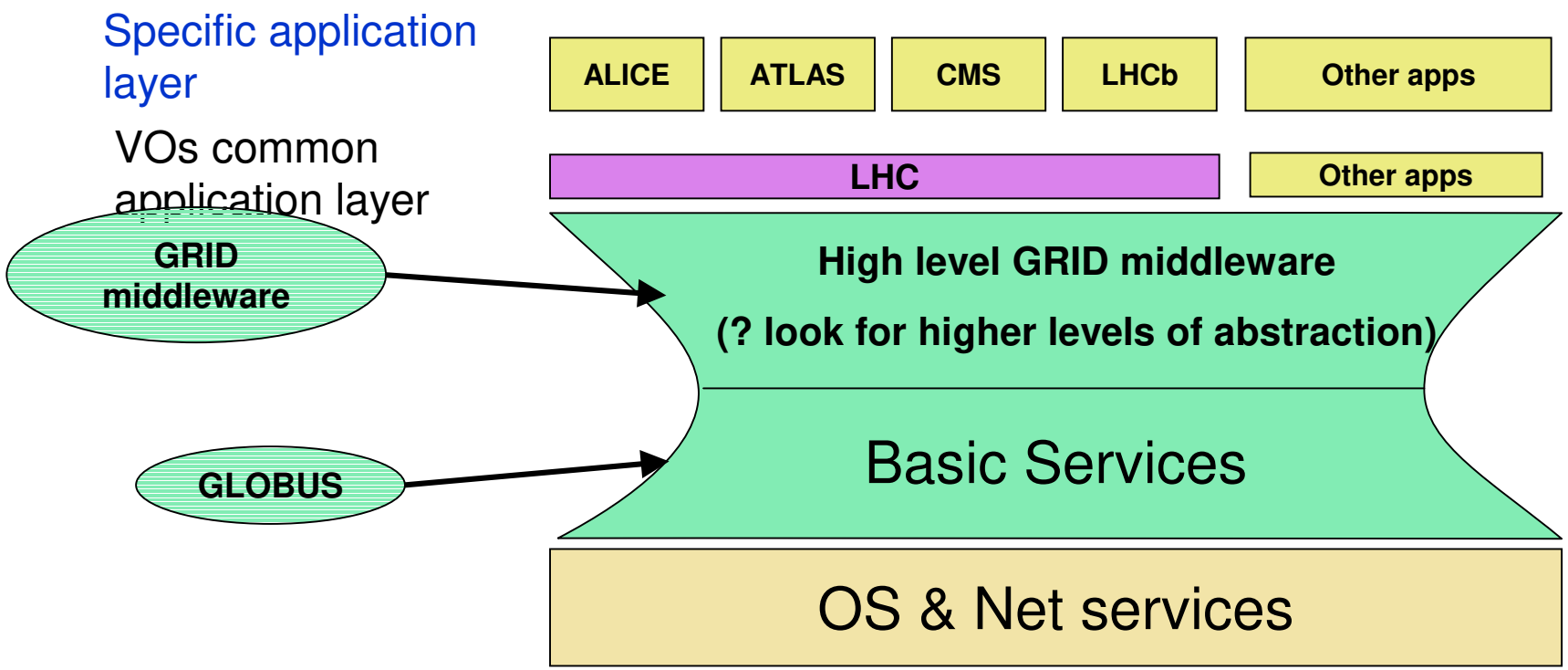
EDG Technical Management (from applications view)

- Iteam
  - This meets once/week. Brings together middleware + test bed + applications to overview current status of middleware integration, deployment and use of testbed. This is the 'pulse' of EDG. Where all the real experts get together. But does not deal with overall strategy and priorities. ? Should we strengthen the power of such a group
- WPM (Work Package Managers)
  - Meets once/ week. Used to be too political, but now has technical agenda, and key reps from WPs. Resolves planning issues. Works much better now. But we need full-time managers, otherwise impossible to keep track and make sensible decisions
- WP8 (HEP Applications)
  - Formal meeting about 8 times a year but working contacts are regular (hourly!). Excellent cooperation between experiments
  - 'Loose Cannons' are vital to project... combine deep systems and applications knowledge... this is how project got 'glued' together under stress in conjunction with experiment task forces!

TASK FORCES (experiment/EDG)

- These were essential in really focusing middleware+application effort on well defined problems.
- Minimal bureaucracy + a lot of good will
- Would have been very good to start the project in this mode and in developing a simple prototype – in hindsight our aims were too ambitious for start-up
- EDG will continue this mode of working to end of project

EDG architecture and search for common application service layers (starting from HEPCAL++)



Looking to the future with EGEE (from applications point of view)

- Lets pause and think – review the 'architecture' before 'hardening'
  - E.g. Write down inter-service APIs and user APIs to Services
- Set up strong applications WG along lines of current WP8+9+10 which will play a role in technical management of project
  - Ongoing evaluation of middleware with real use cases
- Maintain ATF flavoured activities involving middleware and applications

Some thoughts on GAG/EDG/EGEE relations

- Basic remit of GAG is to develop experiment use cases and requirements for Grid services. This should define commonality between experiments in requirements for Grid services and develop high level abstractions
- Lets develop this based on EDG (and US experience) and take the result into EGEE via LCG-EGEE management link (?)
- Hopefully we will have the equivalent of the applications working group (+ATF) in EGEE – this group would act as vehicle in EGEE linking to middleware providers for requirements input and clarification, and for evaluation of the resulting middleware from user point of view. In addition would provide high level consultancy to user communities (need a strong group-but this is essential for success)
- EGEE is multi-disciplinary. We need to define better how to take requirements from several application communities and look for communality (more news/thoughts after AWG meeting at Nikhef Mar 20 involving Biomed/ESA/HEP)

Some immediate questions regarding relations of WP8 and LCG with middleware

- Lets not duplicate work
  - EDG/WP8 and LCG must work together in a coherent way evaluating EDG middleware and interfacing to experiments. (also of course involved with US colleagues and Datatag..... VDT, GLUE..)
- Development of use cases and requirements... (see Jeff's talk..)
  - Principal 'raison d'etre' for GAG
  - WP8 currently mapping HEPCAL use cases to experiment evaluations of 1.4.3 as part of EU deliverable 8.3. Can take it from there (ready by April 1). Synopsis will be presented as part of WP8 paper at CHEP