# LCG: the LHC Computing Grid project

## Middleware & LHC planning change

# Middleware Planning


- Modified startup offers the opportunity to reschedule certain changes to the infrastructure
  - Infrastructure must keep functioning
  - Not a 'free for all'

- Potentially disruptive changes can be scheduled during this less critical period

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- What follows is a list of candidates for things we could try to get finished before a CCRC early 09.
  - It's not a comprehensive list of middleware changes for the next 6 months
  - We will have to live with a certain change rate throughout the production run

# Middleware planning

- VDT1.10
  - Status - The SL4 release of gLite is based on VDT1.6. The SL5 release will be based ultimately on VDT1.10. We could upgrade the SL4 version to 1.10 too. This would require a rebuild and retest of all components.
  - Target - upgrade of gLite3.1/SL4 to VDT1.10. ( this might be less important since critical improvements are back ported)

- FTS/SL4
  - Status - A problem has been found in the recent SL4 release (undeployed) so a fixing iteration will be necessary.
  - Integration will set up an SL5 build to get an idea of its potential but its deployment is not currently the plan.
  - Target - full deployment of 2.1 on SL4

# Middleware Planning

- WN/SL5
  - Status - FIO now has a first installation at CERN, which will be tested by the experiments.
  - Target – available on the infrastructure in parallel to SL4
  - We should also continue to pursue the python2.5 and alternative compiler stuff, but this can be added subsequently.

- Multiple parallel versions of middleware available on the WN
  - Status - at the moment it is not easy to install or use multiple parallel versions of the middleware at a site. While the multi middleware versions and multi compiler support are not disruptive, they require some changes on the packaging side and a small adaptation on the user side.
  - Target - it seems advisable to introduce this relatively shortly after the bare bone WN on SL5.

# Middleware Planning

- glexec/SCAS
  - Status - still nothing delivered to certification.
  - Target - enabling of multi-user pilot jobs via glexec. This could conceivably be via another means than SCAS, but this would have to be decided asap.
  - **News Flash: NIKHEF promised a Patch within one day from now**
- Glue2
  - Status - Glue2 is awaiting final validation at OGF, expected November.
  - Target - we should try to get the new schema deployed to the BDIIs so we can iron out initial deployment glitches, leaving us with a working but unpopulated Glue2 infosys in parallel to 1.3. Info providers could subsequently be upgraded gradually, as could clients.
- CE publishing
  - Status - A set of changes to rationalise publishing of heterogeneous computing resources is envisaged. A full roadmap will be published by Steve Traylen this week. The first phase will be the deployment of the new tools, enabling simply the current situation. Subsequent phases then take advantage of the new tools.
  - Target - the first phase as described above.

# Middleware Planning

- WMS
  - Status: Patched WMS ( fixing LHCb's proxy mixup problem) within 1 week
  - Target: This patch should be deployed
  - ICE to submit to CREAM
    - Not required for certification
    - ICE will be added in a subsequent update ( but better before Feb. 2009)
- Other things we could consider;
  - gridftp2 patches
    - These are being back ported to VDT1.6
    - Important or dCache and FTS
  - CREAM
    - Unlikely to be deployable as an lcg-CE replacement on this timescale, but we can continue with rollout in parallel.
    - Here we should be more agressive:
      - LCG-CE inherently problematic for analysis

# Middleware Planning

- Other things we could consider;
  - Publishing of detailed service versions
    - Several small improved information providers are in certification
    - More could be added
    - Not very invasive, but potentially useful