

LCG: the LHC Computing Grid project

Middleware
post-mortem

CCRC08

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Summary



- The software process operated as usual
 - No special treatment for CCRC
 - Priorities are updated twice a week in the EMT
- 4 Updates to gLite 3.1 on 32bit
 - About 20 Patches
- 2 Updates to gLite 3.1 on 64bit
 - About 4 Patches
- 1 Update to gLite 3.0 on SL3

- During CCRC we
 - Introduced new services
 - Handled security issues
 - Produced the regular stream of updates
 - Responded to CCRC specific issues

Update 22, 13/05/08



- Update 22
- 1219 fix for DENY tags to lcg-info-dynamic-scheduler (Job Priorities)
- 1278 Service Information Provider
- 1474 Patch to enable Sun Grid Engine support for the lcg-CE
- 1663 lcg-infosites (patch 1646 revisited)
- 1683 dCache 1.8.0.12.p6 (First dCache 1.8 release in gLite)
- 1713 VOMS Core + logging Fix v2
- 1721 edg-gridftp-client-1.2.8 fixes bugs 33205, 27274
- 1723 Rebuild MPI_utils mpich RPM with Fortran wrappers
- 1729 APEL working with external log4j and BC
- 1788 Trustmanager fix for install script

Update 22, 13/05/08



- Update 22 (for x86_64)
- 1542 WN 3.1 for sl4 64bits
- 1645 R3.1/SLC4/x86_64: GFAL/lcg_util update
- 1663 lcg-infosites (patch 1646 revisited)
- 1680 R3.1/SLC4/x86_64: GFAL 1.10.8
- 1683 dCache 1.8.0.12.p6 (First dCache 1.8 release)
- 1759 R3.1/x86_64/SLC4: GFAL & lcg_util update

Other updates



- Update 23
- 1829 New marshal packages to fix the security bug

- Update 24
- 1709 [YAIM] yaim core and yaim lcg-ce 4.0.4 series - Job Priorities implementation
- 1813 [YAIM] yaim core 4.0.4-2 containing a quick fix
- 1812 R3.1 lcg-vomscerts-5.0.0 adds next cert for vo.racf.bnl.gov

- Update 25
- 1726 gLite 3.1 WMS for slc4/i386 platform
- 1727 gLite 3.1 LB for slc4/i386 platform
- 1809 New JobManager version for SGE
- 1820 New YAIM for WMS to fix bug 36476





Middleware Baseline

CCRC May recommended versions

Component	Patch #	Status
LCG CE	Patch #1752	Released gLite 3.1 Update 20
FTS (T0)	Patch #1740	Released gLite 3.0 Update 42
FTS (T1)	Patch #1671	Released gLite 3.0 Update 41
gFAL/lcg_utils	Patch #1738	Released gLite 3.1 Update 20
DPM 1.6.7-4	Patch #1706	Released gLite 3.1 Update 18

Middleware issues: lcg-CE



- **Lcg-CE**
- **Gass cache issues**
 - An lcg-CE update had been released just before CCRC, providing substantial performance improvements
 - Gass cache issues which appear on the SL3 lcg-CE when used with an updated WN
 - The glite3.0/SL3 lcg-CE is on the 'obsolete' list
 - <http://glite.web.cern.ch/glite/packages/R3.0/default.asp>
 - No certification was done (or promised)
 - An announcement was immediately made
 - A fix was made within **24hrs**
- **Yaim synchronisation**
 - An undeclared dependency of glite-yaim-lcg-ce on glite-yaim-core meant that the two were not released simultaneously
- **Security**
 - New marshall process not fully changing id on fork
 - Only via globus-job-run

Middleware Issues: gfal/dCache



- **bug #37310: srmv2_desiredpintime variable is not used by gfal_prestage**
 - Affecting Atlas reprocessing
 - Interaction with dCache
 - Resulting pin lifetime of 0
 - The fix is about to enter certification
 - Patches 1900 & 1901
 - Should we fast track this?
 - No request via EMT up to now.....

Middleware issues: DPM



- **NIKHEF had to upgrade to DPM 1.6.10...**
 - When 1.6.7 was recommended for stability
 - lifetime reset to 1.7 days after resize of space reservation
- **Upgrading an installation is normal**
 - Only question is whether the earlier decision to recommend 1.6.7 was wrong
 - On reflection, if only one site had to do the upgrade, it was probably the right decision

Middleware issues: FTS/M



- FTM deployment;
- Needs to go on all T1s to monitor T1-T1 transfers
 - Did a new requirement arise?
 - Or was advice wrong/missing ?

Middleware issues: VDT



■ MyProxy

- It was discovered that the myproxy release (which we take from VDT) was built against the multi-threaded flavour of Globus (whereas the code is single-threaded).
- Checking the certification installation revealed that the problem was not reproducible there
- May be a 64bit related problem
- Workaround published (start myproxy server interactively)

■ Proxy chain validation

- LHCb found that jobs submitted via their DIRAC system e.g. by their French users can easily abort due to the length of the proxy chain
- Problem was traced to a globus limitation
- Fix negotiated with VDT
 - Expected within a week or two

Meanwhile



- Business continued as usual throughout CCRC;
- CREAM entered certification
 - Still finding functional problems
 - Responsive developers
 - Stress tests (required by acceptance criteria) underway
- Lots of glexec attention
 - Security problems
 - GLexec on WN and CREAM are affected
 - Show stopper for pilot job tests
- Further improvements to lcg-CE packaged
- SL5 planning
 - VDT 1.10 was released
 - Estimated delivery date for WN on SL5: September 2008

Other issues for discussion



- Are the communication lines clear?
 - EMT short term planning (days, weeks)
 - TMB medium term planning
 - *All experiments are represented, but ALICE*
- Are the appropriate people aware of the Application Area repository?
 - This gives you early access to new clients
 - They are supplied 'as is' with no support