

gLite Restructuring Summary.

*John White, Helsinki Institute of Physics.
EGEE JRA1 Deputy Middleware Manager.*

- **Boundary Conditions.**
- **Milestones.**
- **Conclusions.**
- **Restructuring procedure defined at:**
<https://edms.cern.ch/file/840168/1/>

- ✓ Move to SL4 on worker nodes and user interface.
- ✓ Move to ETICS build infrastructure.
- ✓ Stabilization and scalability of WMS and LB.
 - Stabilization and scalability of the gLite-CE.
 - gLiteCE development stopped.
 - LCG-CE on SL4 in production.
 - Work on CREAM progressing, certification in mid-February.
 - <https://twiki.cern.ch/twiki/bin/view/EGEE/CECheckList>.
- ✓ SRM-2.2 support in DPM, lcg-utils, gfal, FTS.
- ✓ Update to glue-1.3.
- ✓ Group based accounting.
 - APEL. Back-end done, needs deployment/testing.
- ✓ FTS improvements.
 - Encrypted data and catalogue access.
 - Internal prototype opened to the MDM working group within days
- ✓ Deployment of recommendations of job priorities working group.
 - Short term solution available.
- ✓ VOMS Admin-2 supporting generic attributes.

Compact UI/WN

- Responsible: (mostly) SA3.
- Existence of components in meta-packages challenged.
- RPMs and distribution size reduced.
- Comparison should be made between gLite 3.0/3.1 WN.
- **Completed. On time.**

Remove non-gLite dependencies from Meta-RPMs

- Meta-package dependencies published and rationalized.
- Top-level dependencies remained, others explicitly included by components.
- Developers add external deps to build configurations and test.
- Dependencies in the meta-packages (UI/WN) now understood.
- **Completed on time.**

“Reduced and disentangled dependencies per component”

- “Dependency challenge”.
- Developers presented dependencies for individual components.
- Dependencies reviewed by independent reviewers.
 - Reviewers approve/challenge dependencies.
 - Could suggest quick or long-term changes.

- **Finished with two weeks delay.**

- **Details:**

<https://twiki.cern.ch/twiki/bin/view/EGEE/EGEEgLiteDependencyChallenge>

- **Summary:** <https://edms.cern.ch/document/868661/>

- Logging and Bookkeeping (LB)
 - Dependency Challenge: minor issues.
 - LB code reshuffled among modules for cleaner internal dependency graph.
 - Isolated Globus dependencies (GSS-API still needed). Now use `org.glite.security.gss`.
 - New subsystem `lbj-common` created for code shared between LB and JP.
 - Tested on JRA1 Preview Testbed installation.
- More details: http://egee.cesnet.cz/mediawiki/index.php/LB_and_JP_cleanup

- Workload Management System (WMS)
 - Move to ETICS build system made dependency changes necessary.
 - Removal of the Network Server to leave only the WS interface.
 - Globus gridftp server from VDT now used. Replaces internal version.
 - Adoption of the logging recommendations.
 - WMS-UI: removal of `org.glite.wms.common` and `org.glite.wms.configuration`.

- Security
 - VOMS: Removal of Globus dependencies for TLS/SSL.
 - VOMS-Admin: Adoption of Hibernate/Struts.
Removal of lib/ZSI in works.
 - LCAS/LCMAPS: circular dependency removed. Affected dependency to other components (glexec/WMS).
 - Trustmanager/Util-Java: Bouncycastle/Axis versions advanced.
 - Delegation: Unused dependencies removed. gsoap version advanced.

- Data Management

- DPM/LFC: Update gsoap to gLite-wide version.
- GFAL/lcg_utils: Update gsoap to gLite-wide version. Now uses system LDAP libraries.
- FTS: Updated for standalone build with WSDL from glite-data-transfer-interface and glite-security-delegation-java as gLite dependencies. Updated to project-default Tomcat v5.5. Removed some external dependencies.
- FTA: Update to default log4cpp, replacing some externals with smaller system library.
- EDS: Service and client updated to build with glite-data-catalog-interface (WSDL). Client now uses GFAL, remove entire gLite-I/O. MDM now uses LFC, remove Fireman.

Unified dependencies across components

- Primarily checking the dependency versions.
- Moving to later versions or suppressing out of sync versions.
- Overall dependency consistency checked:
 - Evolved from four gsoap versions to one.
 - Bouncycastle version mostly rationalized.
 - Axis version advanced and rationalized.
 - Still some log4cxx remaining.
 - ETICS provides useful facilities for tracking dependencies.
- **Finished with two weeks delay.**

See: <https://twiki.cern.ch/twiki/bin/view/EGEE/EGEEgLiteMetaPackageDependencies>

- Changes
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- Search
- CERN Webs**
- ABATBEA
- ACPP
- ADCgroup
- AfricaMap
- ALICE
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- ALPHA
- AliceSPD
- ArdaGrid
- AthenaFCalTBAna
- Atlas
- AXIALPET
- CALICE
- CERNSearch
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- Controls
- DefaultWeb
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- ETICS
- EgeePf
- FDGroup
- Gaudi
- GeneratorServices
- GuidesInfo
- HCC
- Inspire
- ILCBDSColl
- ILCTPC
- IBCommTeam
- Know
- LAr
- LCG
- LCGAAWorkbook
- LHCAccess
- LHCATHome
- LHCOPN
- LHCb
- LHCgas

Status of individual services scheduled for gLite 3.1 on SL4

service	SL4/SLC4/i386	SL4/SLC4/x86_64	Debian4/i386	Comments
glite-WN	Released	Certification	Build	
glite-UI	Released	Build	Build	
glite-AMGA_postgres	PPS	Integration	n/a	
glite-BDII	Released	Configuration	n/a	
lcg-CE	Released	Build	n/a	
glite-CREAM	Build	Build	n/a	
glite-FTA_oracle	Integration	Build	n/a	
glite-FTS_oracle	Integration	Integration	n/a	
glite-FTM	Released	Integration	n/a	
glite-LB	Certification	Build	n/a	WMS/LB is being installed as an 'experimental service'
glite-LFC_mysql	Released	Certification	n/a	
glite-LFC_oracle	Released	Certification	n/a	
glite-MON	Certification	Build	n/a	
glite-PX	PPS	Integration	n/a	
glite-SE_classic	Certification	Build	n/a	
glite-SE_dcache_*	PPS	Integration	n/a	
glite-SE_dpm_disk	Released	Certification	n/a	
glite-SE_dpm_mysql	Released	Certification	n/a	
glite-SE_dpm_oracle	Integration	Integration	n/a	
glite-TORQUE_utils	Released	Build	n/a	
glite-TORQUE_client	Released	Build	n/a	
glite-TORQUE_server	Released	Build	n/a	
glite-VOMS_oracle	Released	Integration	n/a	
glite-VOMS_mysql	Released	Integration	n/a	
glite-VOBOX	PPS	Integration	n/a	
glite-WMS	Certification	Build	n/a	WMS/LB is being installed as an 'experimental service'

Note that the lcg-RB is obsolete by the glite-WMS and will not be moved to glite3.1/SL4.

<https://twiki.cern.ch/twiki/bin/view/EGEE/Glite31NodeTracker>

Cleaned Client/Server code

- Many changes already implemented as part of gLite 3.1 release.
 - More code in CVS head.
 - Will be released according to the needs of the PS.
- Postpone changes that would have been too intrusive in the given time frame.
- Code has been analyzed and better understood and medium-term plans in place.
- **Ended as time limit reached.**

More details at:

<https://twiki.cern.ch/twiki/bin/view/EGEE/EGEEgLiteRestructuringClientServer>.

- WMS: Reorganization of WMPProxy and client commands.
`wms.wmproxy-interface` contains the needed WSDL.
- LB: Rearranged client-interface/client/common.
`client-interface` removed.
`org.glite.lb.common` contains definitions, allocation and parsing code.
- VOMS/VOMS-Admin: Build process produces clearly separated packages.

Other Platform Support

- Support of SL(C)4 almost complete.
- WN and a few services on SLC4-x86-64 in certification.
 - All clients available on SL(C)4.
- Debian platform:
 - 11/01/08: VDT “.deb”s delivered, to be installed to ETICS.
- **Continues as part of JRA1/SA3 programme of work.**

- In general, very positive exercise.
 - Simpler and lighter clients.
 - ▶ **WN**: gLite 3.0 (218 RPMs/183 MB)
gLite 3.1 (111 RPMs/120 MB).
 - ▶ **UI**: gLite 3.0 (232 RPMs/183 MB)
gLite 3.1 (132 RPMs/152 MB).
 - Better understanding of the code structure.
 - Using more externally supported software distributions.
 - Many potential conflicts removed.
 - Changed attitude of developers.
 - ▶ Pay more attention to long term sustainability.
- Still some issues remain:
 - bcprov vs. bouncycastle issue.
 - OpenSSL version in globus GSI.
 - uniform logging tools.

JRA1 Report: <https://edms.cern.ch/document/887077/1>