



Enabling Grids for E-scienceE

JRA1 summary

Claudio Grandi
EGEE-II JRA1 Manager
Claudio.Grandi@cern.ch

www.eu-egee.org



PM	ID	Title	Lead Partner	Status
1	MJRA1.1.1	Support plan, definition of common components and tools, strategy for multiple platform support	INFN	PEB approved
3	MJRA1.2	Functional Description of Grid Components	INFN	PEB approved
4	MJRA1.3	Grid Components Reengineering Workplan	INFN	PEB approved
6	MJRA1.4	Shibboleth interoperability through dedicated SICS	SWITCH	PEB approved
9	MJRA1.5	Shibboleth interoperability with attribute retrieval through VOMS	SWITCH	PEB approved
10	DJRA1.1	Report on Middleware Service Reengineering	INFN	PEB approved
11	MJRA1.6	Update of Functional Description of Grid Components and associated Workplan	INFN	PEB approved
14	MJRA1.1.2	Update of Support plan, definition of common components and tools, strategy for multiple platform support	INFN	PEB approved
21 22	MJRA1.7	Shibboleth interoperability with SAML support Authorization mechanisms in gLite	SWITCH	In preparation
23	DJRA1.2	Final report on progress of middleware reengineering	INFN	In preparation

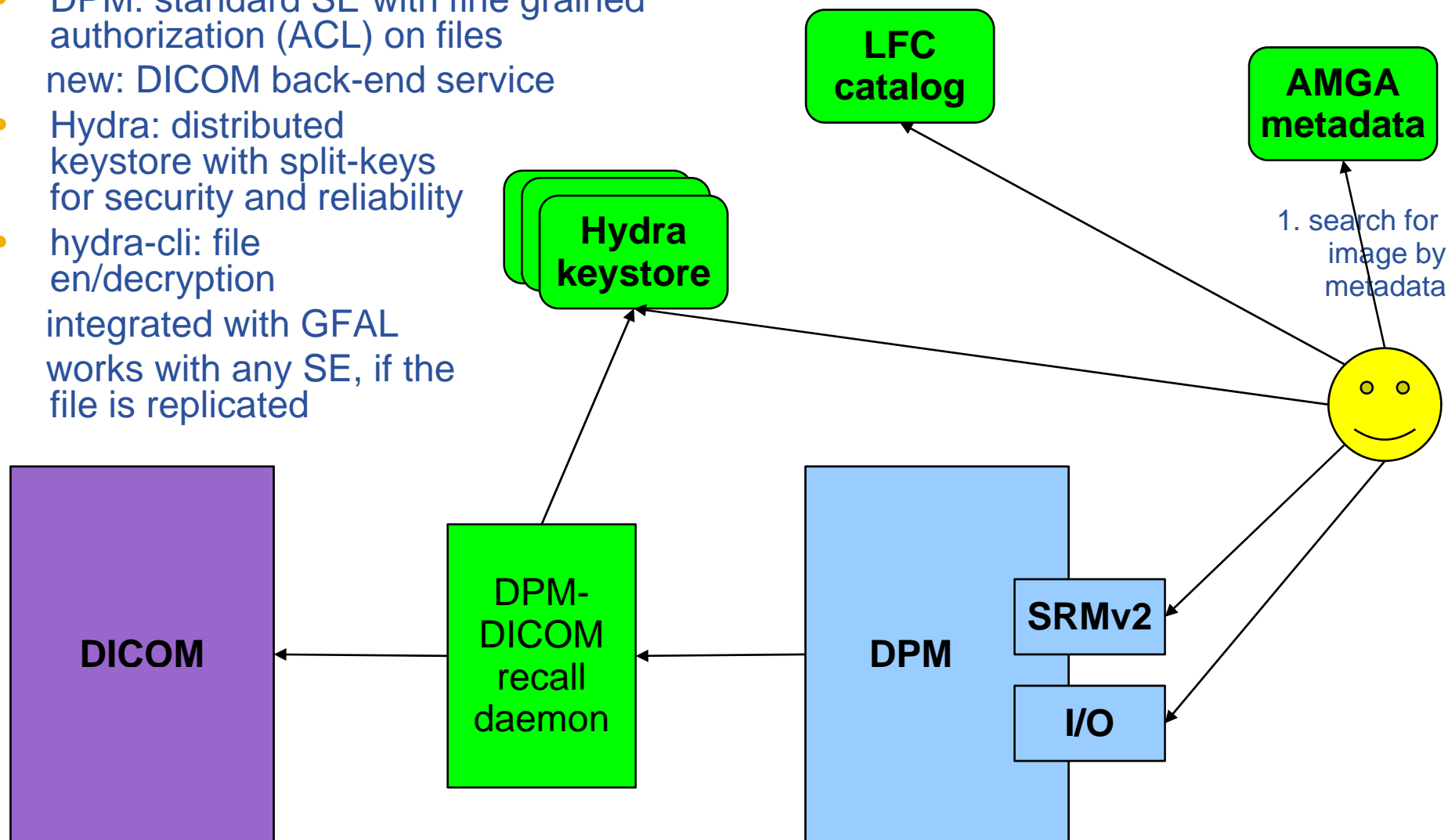
- **Migration to the ETICS build system**
 - Took longer than expected but we have now positive results
- **Preparation of the gLite 3.1 release on SL4**
- **gLite restructuring**
 - See the dedicated talk by John
- **Consolidation of critical components**
 - Stability and performance to match application needs
- **Design of a new Authorization Framework**

- **LCG-CE ported to SL4 by SA3. The CE is not on the critical path any more**
gLite-CE development stopped
CREAM tested at the requested scale. Being finalized now. Will be ready for certification in mid-February
- **WMS/LB on SL3 is now stable, working at the requested scale ($O(10^4)$ jobs/day)**
SL4 version is in certification
 - Many bug fixes and improvements
 - All MPI flavors supported (currently limited to MPICH)
- **Proposed a deployment model for the Job Provenance that will allow to unload the L&B and at the same time keep the information (needed also for security reasons)**
 - Need to understand with SA1 and SA3 how to fit this with the needs of the production infrastructure (LHC CCRC'08 and startup)

- **Migration to SRM v2.2 of DPM, LFC and of all clients is completed.**
- **DPM, LFC ported to SL4 32-bit (64-bit in certification)**
- **FTS v2 released with improved performance**
 - Concentrate on the SL3 release to support LHC experiments
- **Encrypted Data Storage migration to DPM/LFC**
 - DPM with DICOM back-end is being tested with NA4 to be released as v1.6.10 in January 2008
 - DICOM image anonymization and encryption is ready, to be released with DPM v1.6.10
 - Hydra keystore with split-key support is released, integration with DPM/DICOM is being tested
 - Hydra CLI is integrated with GFAL (replacing gLite I/O) and released (patch#1579)
 - LFC encryption is coded, needs integration and tests

DPM-DICOM interaction

- DPM: standard SE with fine grained authorization (ACL) on files
new: DICOM back-end service
- Hydra: distributed keystore with split-keys for security and reliability
- hydra-cli: file en/decryption
integrated with GFAL
works with any SE, if the file is replicated



- **VOMS/VOMS-Admin working on SL4**
VOMS-Admin v2 is a complete rewrite
 - uses standard, well supported, external packages
 - improved performance and security**VOMS v1.8, with significant improvements, in certification**
- **Site Central Authorization Service (SCAS) is the evolution of the LCAS library**
 - Leverages the AuthZ library developed in common with Globus
 - Ready for certification end-February
- **Glexec consolidation and security review**
 - Added support for pilot jobs via SCAS (identity change on WNs)
- **Designing an Authorization Framework to solve in the long term inconsistencies in the use of authorization data and improve resource access mechanisms**

- **Goal is to develop the new Authorization Service in the framework of EGEE-III**
- **Coordinated by Christoph Witzig (SWITCH) who is the new EGEE Security Architect**
- **Based on the experience of the G-PBox prototype and of the new SCAS service**
- **Uses the SAML2-XACML2 profile agreed with Globus and OSG**
 - Used also by the AuthZ library used in SCAS
 - Will be contributed to OASIS (via Internet2) and OGF
- **A set of recommendations derived from the analysis of current system is available:**

<http://indico.cern.ch/materialDisplay.py?contribId=2&materialId=0&confId=24935>

- **On target to complete the refactored R-GMA by the end of EGEE-II as promised**
 - Including authorization
 - Now in the internal testing phase
- **Service Discovery has been developed in two areas.:**
 - The core part is in the OGF SAGA repository
 - The gLite adapter is in the gLite CVS

The SAGA co-chairs have decided last week to offer the SD spec to the OGF editor to go for public comment

- We need to demonstrate that the changes in the code done during the gLite restructuring really made the code more portable
- The adoption of the new logging format and the implementation of the changes needed by site managers are proceeding too slowly
- We still have to release a few components on SL4. In some cases they include improvements needed by the applications (e.g. MPI support in WMS)
- VOMS stability is perceived as insufficient by operators
- The releases of SCAS and CREAM have been delayed and the introduction in production will conflict with the need of stability for the LHC operations
- Similar situation for the deployment Job Provenance (JPPS)
- The implementation of the Encrypted Data Storage proceeded too slowly
- The implementation of the new AuthZ framework will have to assume limited manpower given the JRA1 size in EGEE-III. The design will need to be downsized.

- **Complete the release of all components on SL4 32-bit and of critical node types (UI, WN, DPM, LFC) on 64-bit. Start the porting to Debian**
- **Implement the changes identified during the gLite restructuring that could not be implemented and released until now**
- **Support to CCRC'08 and the LHC start-up**
 - Prompt bug fixing and support
- **Release SCAS, CREAM, the Encrypted Data Storage and the new R-GMA**
- **Finalize the design and start the implementation of the Authorization Framework**
 - Not only implementation of the AuthZ Service but also changes in other components as needed

The next JRA1 All Hands Meeting will be at NIKHEF



Wednesday February 22nd to Friday February 24th