

Enabling Grids for E-sciencE

## Data Management cluster summary

*Ákos Frohner JRA1 All Hands meeting, NIKHEF 20 February 2008* 







EGEE-II INFSO-RI-031688

www.eu-egee.org



Outline

Enabling Grids for E-sciencE

- DPM status
- LFC status
- FTS status
- DM clients: GFAL/lcg\_util
- Medical Data Management
- Internal reorganization



- DPM running in production at more than 120 sites
  - Austria, Belgium, Canada, France, Greece, Hungary, India, Italy, Japan, Holland, Poland, Russia, Spain, Switzerland, Taiwan, UK
- DPM serving 148 Virtual Organizations
  - HEP experiments, biomed, esr, fusion ...
- Collaboration with NAREGI on interoperability
- Collaboration with Globus



- Functionality offered in current production release (v1.6.7):
  - Control interfaces:
    - socket, SRM v1.0, SRM v2.1, SRM v2.2
  - Data access protocols:
    - secure RFIO, GsiFTP (Globus 2.4), http(s) and xroot
  - Full support for permanent and volatile spaces
  - ACLs on disk pools
  - Improved version of dpm-qryconf
  - Recursive srmLs and srmRmdir
  - SL4 32 and 64 bits release including gridFTP 2 plugin



- Functionality offered in latest release (1.6.10)
  - IPv6 support
  - DICOM back-end
  - Variety of bug fixes
    - GridFTP 2GB file problem
    - new administrative tools for user/group listing
    - new tools for space token management
- Status: release in preparation
- Plans:
  - stream limit per node
  - SRM copy coming next
  - Quota support

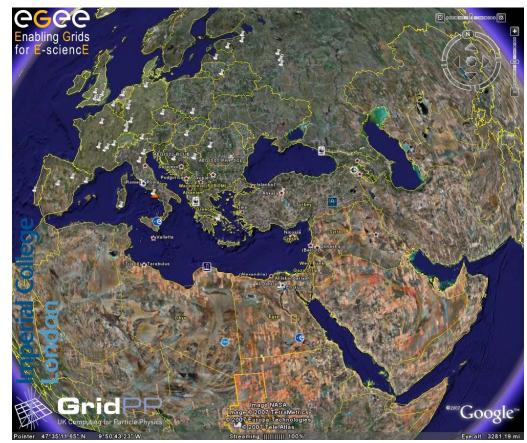




- LFC in production at over 110 sites for 158 Vos
- Current LFC production version 1.6.8

## • LFC

- Added bulk operations to improve performance
- Plans
  - encrypted protocol

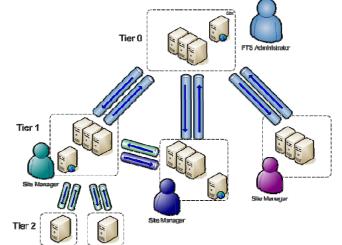




Current FTS production status

Enabling Grids for E-sciencE

- All T1 sites now have FTS 2.0 installed
- FTS 2.0 has been well tested and is now in production
  - It's being run hard in current experiment activities
    - Currently CCRC'08



- Support for this is absorbing most of the team's effort
- Even after all the testing, we still find issues in production!
  - SRMv2.2 space token handling
  - These are being addressed with urgency
- Focus is now upon
  - SL4 release
  - Integration with experiment operations

**eGee** 





- FTS development and integration activities
  - Continue SRM 2.2 integration on production service
  - Incrementally improve service monitoring and admin
    - Better service admin tools being released
    - Monitoring work now prototyped and running on pilot
    - FTM node currently in PPS
    - Incremental approach



- A number of bug fixes and improvements
  - automatic BDII failover (one can provide a list of BDIIs)
  - wider deployment of the new version exposed problems in the SRMv2.2 code, which were quickly addressed and released
- Planning
  - Longer term: thread safe version of GFAL / lcg\_util



- **DICOM** integration with **DPM**
- Using GFAL in Hydra client
- Initial prototype was demonstrated at the 3<sup>rd</sup> UF
- Next step:
  - checking the details with NA4
  - release, aiming end of February
  - handing maintenance to HIP



- gLite/JRA1 data management developers have joined the CERN 'Data Management' group with mandate:
  - Ensure a coherent development process for CERN Physics Data management activities, strongly driven by operational and user needs.
  - CERN Physics Data management activities includes Castor, DPM, FTS, LFC and associated grid tools, Physic database operation and development of related applications and tools.



- Summary and plans
  - gLite restructuring ~done
  - FTS 2.0 in production for experiment FDRs
  - New functionality for LFC/DPM
    - IPv6, DICOM back-end
  - Lcg\_util / GFAL bugfixes
  - Full DM stack is using SRM 2.2 into production
  - Medical data management release candidate
- Focus is on the service delivered:
  - Significant effort provided to support operational services, user support and bug fixes
  - Significant resources going into supporting current production challenges on WLCG / EGEE / OSG grids

Summary