4. HEP-CG Workshop

13.12 - 14.12. 2007

Siegen

Extensible Metadata Catalogue

ILDG

Dirk Pleiter

Extensible Metadata Catalogue

* Metadata catalogue key service of Latfor DataGrid (LDG)

* Stable operation during recent months

* Use of grid tools has become standard for a large number of lattice physicists within Europe

* But: Hurdles to start using grid are still considered high

  - Obtaining grid certificate: sometimes difficult

  - Installation of grid software: easy solution provided

  - Data mark-up and upload: not trivial

* More training efforts required

ILDG use cases

* The following uses cases have recently been communicated to EGEE:

  - Registering to use ILDG
    - Issue: replication of VOMS service
  - Obtaining a valid X.509 certificate
    - Issue: portability of grid software, security issues
  - Data management client operations on different platforms
  - Search for scientific data

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New Developments

* **Web-Service interface implemented**

  - Generic interface to different file catalogues (uses, e.g. to interface to LFC@DESY and RLS@EPCC)

  - Currently only 1 lookup operation (getURL)

  - Some file catalogues require authentication
    → delegation service required

  - We use gLite delegation service (which turned out to have some problems ...)

* **Updated GUI based on LCG53 configuration**

  - Components: VDT v 1.6, LFC v 1.6.5, gfal v1.10, glite-data-dm-util v 1.6.0

  - Supported linux flavours: FC3, FC6, SL3 (SL5), SLES 9,Suse 10.0 (Suse 9.2), Suse 10.2 (Suse 10.3), Ubuntu 7.10

File Replication

✳ File replication within grid-of-grids difficult

✳ Following concept currently under discussion:

- Assume file has initially been uploaded to Grid A

- Replication = Grid B pulls copy of file and registers it in local file catalogue without replicating metadata

- Retention policy: replicas outside originating grid are assumed to have "replica quality"

- Access control: due to incompatible AuthZ concepts a file has to be public and marked replicatable when it is replicated outside the orgiginating grid

- Other issues: out-of-date copies, stale copies