



Data client library consolidation

Zsombor Nagy (NIIFI, Hungary)

zsombor@niif.hu

Data client library consolidation

- Merging common functionality between the gLite and ARC data access libraries
- The objective refers to **EMI data access clients**, which could also contain dCache and StoRM libraries
- **Any other components?**
- People: **Jon**, Zsombor, Ricardo R.
- wiki: [EmiJra1DataClientsConsolidation](#)

Technical Development Plan

- Providing a common set of data access libraries at least between gLite and ARC [M24]
- Completed migration to the common set of data access libraries [M36]
- **emi_datalib?**

ARC Data Libraries

- **libarcdata2**
 - modular, easy on dependencies
 - multiplatform (Linux, Mac, Windows, Solaris)
 - python binding, java binding
 - ftp, gsiftp, http(s/g), ldap, rls, lfc, srm, file
 - does not consume any GLUE info
 - does not provide POSIX access
- **arc*** clients
 - arcls, arccp, arcrm

- **LCG Utils** uses **GFAL**
- The **GFAL** library presents a Posix-like interface for the I/O operations.
 - **file** (local access)
 - **dcap** (dCache access protocol)
 - **rfio** (CASTOR access protocol)
- Consume GLUE1.3 info

dCache

- CLI
 - **srmcp**
 - **srmstage**
- C library for dcap
 - The **libdcap** library provides a POSIX like open, create, read, write and lseek functions to the dCache storage

How to progress?

- We need a very technical list of features:
 - What can users do with lcg-util/arc* which cannot be done with the other
 - What do the developers use from GFAL/libarcdata2 which is not provided by the other
 - How easy/complicated is the configuration
 - Dependencies, platforms, languages, etc.

GLUE2

- We are also following the task force about **GLUE2 migration**
- The new data libraries should of course consume GLUE2 information from storage elements

Input and support needed

- Wiki page: [EmiJra1DataClientEvaluation](#)
- Feel free to add any relevant information
- We will organize a skype meeting soon to discuss the key differences of the data clients



Thank you!

EMI is partially funded by the European Commission under Grant Agreement INFSO-RI-261611

EMI 2010 All Hands Meeting, 22-24 November 2010