

GGGG

Enabling Grids for E-sciencE

Summary of Day 2

www.eu-egee.org





- Grid file concept: Write-once, read-many
- Storage element: physical location of files
- File catalog: logical hierarchy of grid files
- Logical file name (→ GUID → SURL → TURL)
- File replicas:
 - Keep computation close to data
- File manager tools:
 - Ifc-* command line clients → catalog manipulation
 - lcg-* command line clients → storage + catalog manipulation
 - GFAL API → access remote content without creating local file

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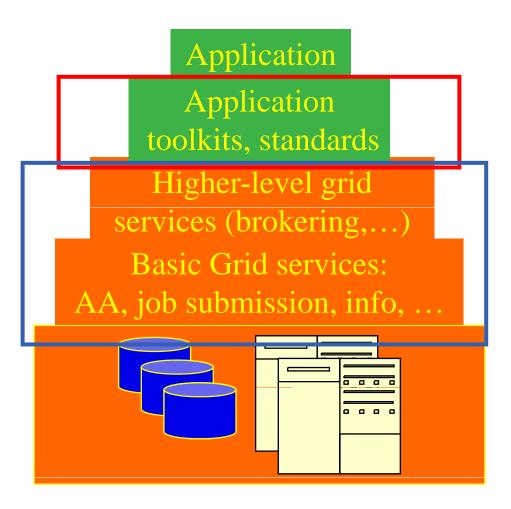


Reusable examples

4 examples

- Writing the results of the job from the CO to the SE using lcg-* utils
 - Large files
- Cause a job to run on a CE close to the SE that holds a named file
 - Balancing between data transfer and execution time
- Use a script to cause multiple jobs to run and monitor
 - Parametric study at the scripting level
 - P-GRADE Portal parametric study tomorrow
- LFC commands to control access to files
 - Collaborative work by the sharing data





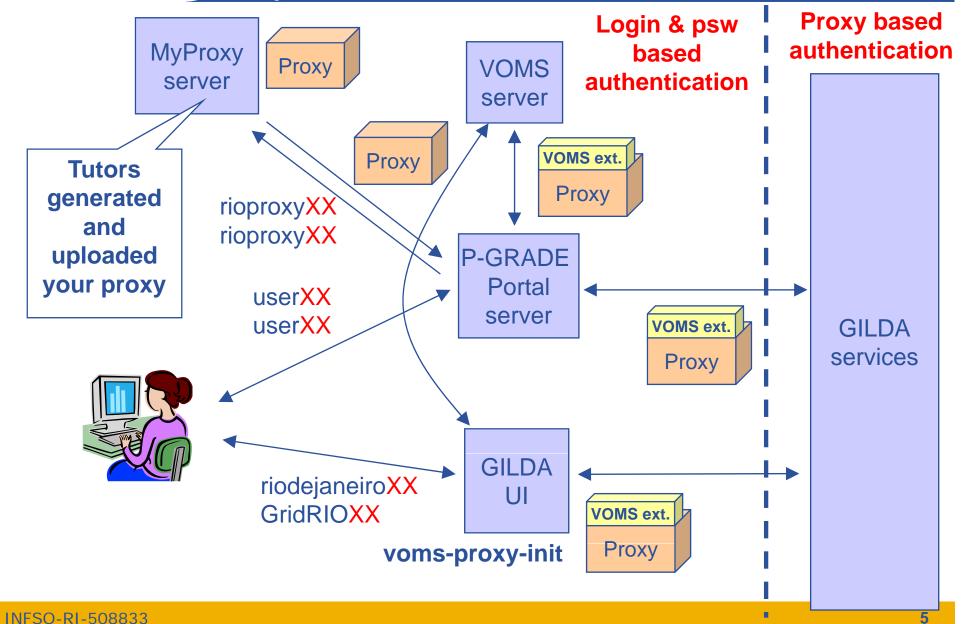
- To hide the complexity of the grid middleware
- To provide application specific user interface
- To provide easier access mechanisms (web)
- To keep the user focused onto the "real problem", solve everything else – abstract interface

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User authentication

Enabling Grids for E-sciencE





User authentication

nabling Grids for E-sciencE

Alternative interfaces, but the same grid infrastructure:

- Same set of Computing Elements
- Same set of Storage Elements
- The same Workload Management System (broker)
- The same Logical File Catalog
 - LFNs are the same

Single sign-on:

- Authenticate with name&psw once: when you generate your proxy
- Use the proxy to authenticate with the grid services

Proxy based authentication

GILDA services



P-GRADE Portal and GEMLCA

Enabling Grids for E-science

- Graphical support for the development and execution of
 - Data driven workflows
 - Parameter studies (parametric studies)
 - Single Instruction Multiple Data parallelization Tomorrow
- Workflow: Put together components into larger applications
- Parameter study: Execute components/workflows with large number of parameters
- Interoperable with gLite, Globus 2, Globus 3, Globus 4 grids
- Make your code accessible to a wider community: GEMLCA specific P-GRADE Portal



How to get access?

- Visit www.portal.p-grade.hu
 (manuals, slide shows, installation procedure, etc.)
 - Get an account on one of its production installations:
 - portal.p-grade.hu/index.php?m=5&s=0
 - GILDA P-GRADE Portal
 - Not only for training events!
 - Get your certificate from GILDA CA
 - Join the GILDA VO
 - Get an account on GILDA P-GRADE Portal
 - If your grid / VO does not have P-GRADE Portal yet, contact SZTAKI and ask for an installation!



Morning:

- Parameter study development with P-GRADE
- AMGA Metadata catalog: what happens if you have to work with hundreds of files?

Afternoon

- Additional tools for EGEE users:
 - GANGA, GridWay, Programming APIs
- Support for EGEE users
- Grid projects and efforts in South America