

Grid Computing Course

Summary

Porto, 22-24 January 2007.

Basic concepts

- Grids are
 - heterogenous, distributed, wide area infrastructures primarily used for
 - high-performance, high-throughput, collaborative computing.
- Two different concepts:
 - Desktop Grids → collect idle machines for master-slave parallel applications
 - Utility Grids → dedicated machines provide services in 24/7 mode for generic sequential and parallel applications
- Most widely known middleware implementations:
 - Globus Toolkit v2 and v4 → Developed by the Globus Community
 - gLite → Developed by the EGEE project

Concepts

- Services of the GT4 middleware can be accessed by
 - Standard GT4 command line clients
 - 3rd party interfaces (e.g. P-GRADE Portal)
 - Your own client → Have to learn WSRF programming first...
- If you want your own GT4 or gLite Grid:
 - Install GT4 or gLite on **every cluster**
 - (Install GEMMLCA and P-GRADE on one central machine)

What can you do next?

- Learn more about these technologies:
 - gLite related training and education:
<http://www.egee.nesc.ac.uk>
 - Globus related training and education:
www.globus.org
- Get access to a production Grid:
 - National grids (e.g. EELA)
 - Science domain specific grids
(e.g. different VOs of the EGEE project: <http://egeena4.lal.in2p3.fr>)
- Build your own Grid (establish your own VO):
 1. Specify what you need (targeted use cases and applications)
 2. Choose a technology → ask for help from EGEE or Globus
 3. Install, configure, use...
- How to propose a new VO in EGEE:
<http://egeena4.lal.in2p3.fr>

Thank you!