



Enabling Grids for E-science

Összegzés és hogyan tovább

www.eu-egee.org



INFSO-RI-508833

- **Grids are:**
 - heterogenous, dynamic, distributed, wide area infrastructures primarily used for
 - high-performance computing
 - high-throughput computing
 - collaborative computing
- **Two significantly different concepts:**
 - Desktop Grids (DG)
 - Utility Grids (UG) → In the focus of this course
- **Main differences:**
 - SOA vs. Client-server model
 - Utility grid resources host server software → Difficult to maintain
 - Desktop grid resources host client software → Easy to maintain
 - Access control
 - Many users can access UGs (VO concept)
 - Few privileged users can access DGs
 - Operation
 - DG resources are volatile – cycle scavenging systems
 - UG resources provide 24/7 service

- **An EU founded Grid project: 2004-2006 EGEE; 2006-2008 EGEE-II**
 - Build, deploy and operate a consistent, robust a large scale production grid service that
 - Improve and maintain the middleware in order to deliver a reliable service to users
 - Attract new users from research and industry and ensure training and support for them
- **gLite middleware: Bag of services that address key distributed system issues:**
 - Security, Data management, Job management, Monitoring
- **Components**
 - User interface → access service for end users
 - Workload Management System → resource broker
 - Computing Element → computing service, a job queue
 - Storage Element → File storage
 - File catalog → File registry
 - Information System → Resource database

All built onto Grid Security Infrastructure (GSI)

 - Public Key Infrastructure + Proxies + VOMS

- **Obtain a certificate from a recognized CA:**
 - www.gridpma.org → 1 year long, renewable certificates, accepted in every EGEE VO
 - NIIF CA in Hungary – www.ca.niif.hu
- **Find and register at a VO**
 - EGEE NA4 - CIC Operations portal: <http://cic.gridops.org/>
 - SEEGRID VO – Southern Eastern European VO
 - VOCE – Central European VO
 - HunGRID – Hungarian VO
 - GILDA VO – training and application prototyping
- **Use command line clients installed on the User Interface**
(UI – maintained by the VO / your institute / you)
- **Use third party interfaces**
 - P-GRADE Portal
- **Use programming APIs to interact with gLite services from your code**
 - Requires SW developer skills

- Login to UI
- Upload your program, compile it, statically link it
- Describe your grid job in JDL

- Login to the grid:
voms-proxy-init -voms voname

- **glite-wms-job-submit (edg-job-submit) → JobID**
- **glite-wms-job-status**
- **glite-wms-job-output**

- **voms-proxy-destroy**

- **Get access on**
 - <http://portal.p-grade.hu/multi-grid>
- **Access SEEGRID resources**
- **Develop workflows**
- **Develop parameter studies**

- **Register to other VOs and ask SZTAKI to connect the portal to them**

- **Tanusítvány USB-n (és SEEGRID MyProxyban) legyen meg**
 - Letörölni minden ilyen fájlt glite-tutor.ct.infn.it-ről
 - Kitörölni a böngészőből
 - Letörölni a helyi gépről (Desktop?)
- **SEEGRID használat saját tanusítvánnyal Portálon át**
- **SEEGRID használat parancssorból**
 - Nincs központi SEEGRID User Interfész gép
 - Saját gLite UI installálását igényli
- **Más VO-ba való regisztráció, tagokkal együttműködés**
 - <http://cic.gridops.org/>
 - Biomed
 - Earth science
 - . . .

- **Dekstop grid használat**

www.dekstopgrid.hu

- Donor beajánlása
- Alkalmazás fejlesztés
- Lokális Dekstop Grid felállítása

Támogatás: desktopgrid@lpds.sztaki.hu

- **Alkalmazás gridesítéséhez segítség (EGEE és Desktop Grid is)**

- www.lpds.sztaki.hu/gasuc

- Sipos Gergely (sipos@sztaki.hu), Kacsuk Peter (kacsuk@sztaki.hu)

- **International Winter School on Grid Computing**
 - Online, ingyenes oktatás, elő közvetítésekkel, offline tutoriálokkal
 - Február 6 – Márc 12.
 - <http://www.iceage-eu.org/iwsgc08/index.cfm>
 - Condor, gLite, OGSA-DAI
- **International Summer School on Grid Computing**
 - Balatonfüred, Július 6-18.
 - www.issgc.org
- **DAPSYS**
 - Debrecen, Szeptember 3-5.
 - 7th INTERNATIONAL CONFERENCE ON DISTRIBUTED AND PARALLEL SYSTEM
 - <http://www.lpds.sztaki.hu/dapsys/>



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Viszlát...

... és ne felejtse el senki leadni az értékelőlapot!

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