



Enabling Grids for E-scienceE

EGEE'07 NA3 Partners Review

RoGrid JRU

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www.eu-egee.org



- History
 - Set up in May 2002
- organizations from research, academia and IT :
 - National Institute for R&D in Informatics (ICI) – coordinator
 - University “Politehnica” of Bucharest (UPB)
 - National Institute for Physics and Nuclear Engineering (NIPNE)
 - National Institute for Aerospace Research (INCAS)
 - University of Bucharest (UB)
- New members from 2007:
 - Technical University of Cluj Napoca (UTCN)
 - West University of Timisoara (WUT)

- **Using GRID and Multimedia resources for communication**
 - **Place: ICI, Conference Room, Bucharest, Romania**
 - **Date: 2007.02.15**
 - **Participants: public administration representatives, universities, research institutes**
 - **Number of participants: 50**
 - **Web page: <http://www.rogrid.ro/ugmrc/index.html>**
 - **Description: In this meeting were presented the advantages of using GRID technologies as well as multimedia communications in research activities were collaboration is the key of success.**
 - **Selective topics: EGEE Introduction, SEE-GRID Introduction, WLCG International Collaboration, GRID facilities for users, GRID applications, multimedia system for communication.**

- **Topics:**
- **Training activity done by ICI through practical demonstrations on remote site administrators collaboration**
- **Using GRID facilities and applications, presentations by INCAS and UPB**
- **Practical demonstration on using multimedia system for communication between research project's partners**

- **Technical program:**
 - D. Banciu, ICI, *Overview of EGEE projects*
 - G. Neagu, ICI, *Overview of SEE-Grid project*
 - M. Dulea, IFIN, *The WLCG International Collaboration*
 - A. Stanciu, ICI, *Grid systems facilities for users*
 - C. Nae, V. Cristea, INCAS, UPB, *Grid Applications*
 - C. Leanca, ICI, *Using the multimedia system for communication and collaboration*
 - *Demonstrations and open discussions*

- **International ICFA Workshop on Grid Activities within Large Scale International Collaborations**
- **Place: Sinaia, Romania**
- **Date: 13.10.2006 - 18.10.2006**
- **Participants: academic and research community, policy makers, guests from abroad**
- **Number of participants: 100**
- **Web page: <http://niham.nipne.ro/events2006/>**
- **Description: gLite training day**
- **Selective topics of the workshop: Grid Applications for HEP and Grid Applications for other domain, Status of Grid developments at LHC, Networking and Digital Divide Issues**
- **NIPNE is also organizing short term trainings (1-2 days) dedicated to physics users**

➤ **UPB GridInitiative 2007 – Grid summer school**

- **Place: Bucharest, Romania**
- **Date: 09.07.2007 - 27.07.2007**
- **Participants: mainly students**
- **Number of participants: 20**
- **Web page: <http://gridinitiative.ncit.pub.ro/>**

- **Description: Disseminate Grid-related information and build a team for future projects. Summer school.**

- **Selective topics: Current trends in Grid Computing, MonALISA: Monitoring Agents using a Large Integrated Services Architecture, Service Oriented Architectures - Introduction.Managing Grid Resources with Condor Web Services**

➤ “Scheduler of the week” - 1st Edition

- **Place: Bucharest, Romania**
- **Date: 12.04.2007 - 24.05.2007**
- **Number of participants: 30**
- **Web page: <http://diogenes.grid.pub.ro/gsow.html>**

- **Description: “Scheduler of the week” initiative is a session of seminars, organized weekly in April-May period.**

- **Selective topics: Analysis of Grid Scheduler projects around the world, Evolution of scheduling strategies for distributed systems, Integration of scheduling tools with Grid middleware, Optimization of scheduling mechanism for real-time systems.**

- **Current training activities:**
- **Topics:**
- **Pre-production gLite at INCAS**
- **MPI related specific configuration for specific usage in flow physics**
- **Dedicated training for application migration in the MPI environment at INCAS**
- **First version of a CFD tutorial for INCAS researchers and students**

➤ Grid application for datafusion

- **Place: Bucharest, Romania**
- **Date: 2007.02.16**
- **Part of NATO – SSTAG – technical topic**
- **Number of participants: 40**

- **Description: The presentation enables higher usage of existing information on global observation. Datafusion is implemented in heterogenous Grid enabled cluster.**

- **Selective topics: Global computing infrastructures, Grid algorithms, sensitive information processing on GRID**

- **DxUNSp platform for advanced computing in aeronautics – Tutorial**

- **Place: Bucharest, Romania**
- **Date: 2007.07.05**
- **Number of participants: 24**

- **Description: CFD and related application, using MPI environment and Grid technology for high performance computing. Migration from local workstation in Grid.**

- **Selective topics: Global computing infrastructures, Advanced design and analysis, MPI - Grid algorithms**

➤ **Workshop at UB:**

- **Place: Bucharest, University of Bucharest – Faculty of Letters**
- **Date: 08.11.2006**
- **Number of participants: 30**
- **Web: <http://www.rogrid.ro/ubtraininginduction/>**

Description: The workshop held at University of Bucharest is a distinct activity in the framework of the EGEE project to preparing and instructing new members of the research team and new users also.

Participants: Faculty of Mathematics and Informatics, Faculty of Letters, Faculty of Physics, Library Specialists, and Central University Library representatives

- **Faculty of Letters hosted also the presentation of GRID's structures with their functioning and administration detailing as are they included in student and master courses at Electronic Public Administration**

- **Grid training days in Timisoara (GridTDT)**
- **Place: West University of Timisoara, Timisoara**
- **Date: 7-8.12.2006**
- **Number of participants: 40**

Participants:

- **Graduate and undergraduate students from West University and Technical University of Timisoara**
- **Teachers from the two universities**
- **Representatives of SMEs from the region**

Invited speakers (13 presentations):

- **ICI**
- **Technical University of Bucharest**
- **West University of Timisoara**
- **Technical University of Timisoara**

- **V. Negru, D.Petcu (UVT) : *Roadmap in GRID issues***
- **D. Banciu (ICI) : *EGEE and RoGrid***
- **G. Neagu, A. Stanciu (ICI): *Regional Grid Infrastructure SEE-GRID***
- **D. Banciu (ICI): *Digital libraries on Grids***
- **D. Zaharie, D. Petcu (UVT): *MedioGrid achievements***
- **D. Petcu (UVT & leAT) : *CompGrid & SCIENCE achievements***
- **Al. Herisanu, L.E.Duta (UPB) : *Grid monitoring with MonALISA***
- **G. Neagu (ICI), D. Petcu (UVT) : *GridMOSI achievements***
- **I. Jurca (UPT) : *RoEduNet***
- **A. Stanciu (ICI) : *Grid site administration***
- **A. Stanciu (ICI) , S. Panica (UVT): *Admin exercises***
- **F. Fortis: *Web services for IT business. VISP achievements.***
- **D. Petcu, A. Carstea, G.Macariu, M. Frincu (leAT): *Grid services deployment and usage***
- **F. Fortis - moderator (UVT): *Towards the usage of the new technologies in IT business***

- **Workshop on GRID Computing**
 - **Place: Cluj-Napoca, Romania**
 - **Date: 2007.09.06**
 - **Part of: IEEE ICCP 2007 – 3rd International Conference on Intelligent Communication and Processing, 6-8 sept. 2007**
 - **Number of participants: 30**
 - **Web page: <http://transilvania.coned.utcluj.ro/~asuciu/wgc/>**

- **Description: The workshop aims to bring together computer scientists, and experts who are working in the field of grid computing. The workshop consists of invited papers from internationally recognized experts presented in a half day session.**

- **Selective topics: Global computing infrastructures, Deployment and maintenance of production infrastructures, Digital content management and digital libraries, Environment information processing on GRID.**

- **Distinct training activities during the event:**
- **Pre-production gLite deployment preparations and training with the technical staff of the university's Communication center**
- **“Hands-on” training for students on the existing GRID site in order to prepare and implement their diploma projects (6 diploma projects finalized in 2007 and 6 in progress)**

- **Technical program:**

- D. Banciu, Overview on RoGRID, SEE-GRID and EGEE II initiatives and projects
- G. Sebestyen, D. Banciu, A. Hangan, R. Marfievici. *Digital Libraries on GRID Infrastructure*
- F. Desprez, A. Vernois. *Semi-Static Algorithms for Data Replication and Scheduling Over the Grid*
- A. Suciu, R. Potolea, G. Neagu. *Cryptographic and Cryptanalytic Algorithms for Grid Applications*
- D. Gorgan, V. Bacu, C. Melenti, O. Muresan. *Satellite Imagery Application Development in MedioGrid Infrastructure*
- R. Barbantan, D. Gorgan. *Rendering Techniques for Distributed 3D Scenes*
- G. Neagu, A. Stanciu, V. Florian, A. Vataman. *SEE-GRID project - support for sustainable development of Grid oriented infrastructure and applications in the SEE region*

- **NA3 objectives were achieved for:**
 - **Programmers – The most active partner was UPB, which develops in a continuous manner the training courses (long or short term) and summer schools (where are involved students and young teachers).**
 - **Administrators – ICI has a major role, not only for the old members of the consortium but also for the new partners UTCN and UVT. ICI through specialists assures a continuous training support for new sites administrators.**
 - **Users – The main user communities addressed by the training activities were Biomed – Earth Science, High Energy Physics (represented by the NIPNE partner) and digital libraries researchers (represented by UB, UTCN and UVT).**

➤ **Future action points:**

- **A common syllabus for administrators and programmers at national level;**
- **Accredited lecturers according to the national syllabus;**
- **A user guide for different kind of training courses (programmers, administrators, users);**
- **More involvement of private companies as beneficiaries of training activities;**
- **Closely cooperation among partners at JRU level and focus at the national needs.**