



National Technical University of Athens

EGEE Project

3rd Parties Kick off Meeting,

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NTUA's Background Expertise on Grids

GRID resource management, including:

- ✓ Fault tolerance and reliability
- ✓ Definition, control and scheduling for Quality of Service (QoS)
- ✓ Scheduling evaluation and its relation to the charging policy

Communications aspects of grid computing:

- ✓ Identifying and solving prototype communication problems
- ✓ Algorithms and network control protocols for the Implementation of the Computational Grid
- ✓ Connection Establishment Protocols (for selection of a route, broadcasting and multicasting etc)

NTUA's participation on FP5 Grid projects

☞ *GridLab - A Grid Application Toolkit and Testbed (IST-2001-32133):*

- ✓ Main participation in the development of fault tolerant scheduling algorithms based upon reservation facilities and performance prediction

☞ *GRIA - Grid Resources for Industrial Applications (IST-2001-33240):*

- ✓ Modelling of QoS comprising:
 - Modelling of workload estimation on the client's side
 - Modelling of capacity estimation on the supplier's side

NTUA's participation on FP6 Grid projects

HPC-EUROPA- Pan-European Research Infrastructure on High Performance Computing (Project No. 506079):

- ✓ Participation in the design and development of a Grid Portal to be utilised as a Virtual Organisation (VO) building tool (JRA2)

NextGrid-The Next Generation Grid (Project No. 511563):

- ✓ Core team of the Architecture Research activity of NextGrid and analysis sub-activity leader
- ✓ Main participant in end-to-end-performance modelling
- ✓ Design and development of scheduling algorithms and semantic description for workflow mapping onto services

NTUA's participation on FP6 Grid projects

 *AkoGriMo - Access to Knowledge through the Grid in a mobile World (Project No. 004293):*

- ✓ Major participation in the following activities:
 - Definition of architecture for a Mobile Grid
 - Design and Implementation of Core Grid Services (NTUA will lead this activity)
 - Integrating activities towards Grid applications adaptation
 - Definition of the AkoGriMo final testbed

NTUA's Role in EGEE

- ☞ NTUA will provide support to the 2nd HellasGrid node (Athens) in the frame of Activity NA3 - User Training and Induction
- ☞ Preparation of the appropriate tutorial material
- ☞ Presentations to the regional users' groups on the following topics:
 - ✓ Background knowledge specific to the Grid architectures
 - ✓ Grid technology tools (e.g. OSI, Globus Toolkit etc.)
 - ✓ Development of services in Grid-based working environments