



EO Applications Session

DataGrid WP9

Final DataGrid Conference
Heidelberg
September 26-October 1st 2003

- Status Report
- Overview of Objectives & Achievements
- Work plan for Sep-Dec 2003



Status Report - Tasks

- Task 9.1 EO requirements definition
 - Completed
- Task 9.2 EO related middleware components (pm1 - pm18)
 - Completed
- Task 9.3 EO Platform Interface Development (pm7 - pm30)
 - Completed
- Task 9.4 EO Ozone/Climate application (pm13 - pm36)
 - Evaluation of TB 2.0 by running the EO GOME Usecase
 - D9.5 (Demonstration & Report) due December
- Task 9.5 Full scale Earth Science application (pm7 - pm18)
 - Completed



Status Report - Deliverables

- Delivered to EU
 - D9.1 EO Requirements Specification
 - D9.2 Report on Grid Testbeds State-of-art
 - D9.6 Report on the EO application scaling study
 - D9.3 Demonstration /report of second software components release
 - D9.4 Report on EO application platform interface
- In preparation
 - D9.5 EO application processing test-bed (Demonstration and report)



Status Report - Effort (pm)

Partner	Allocated effort	Accumulated effort	Available (Allocated - Accumulated)	Estimated to complete	Deviation (Available - Estimated)
ESA	94.0	145.40	-51.40	3.0	-43.8
KNMI	24.0	23.64	0.36	4.0	-3.6
ENEA	0.0	3.10	-3.10	0.0	-3.1
RAL	0.0	1.00	-1.00	0.0	-1.0
IPSL	36.0	47.50	-11.50	5.0	-14.2
Total	154.0	220.64	-66.64	12.0	-65.7



Overview of Objectives & Achievements

- EO Application environment and components
 - EO Requirements for Grid (D9.1, AWG)
 - GOME product processing & validation usecase deployed on Grid
 - Application Interfacing to Grid : EO Grid Portal, EO GridEngine & GridSurfer (D 9.4)
 - Low-level interfacing components, scripts, testing tools etc.
- EO infrastructure deployment
 - EO Resources on the Grid - UI, CE, SE at partners sites
 - Access to several infrastructures : EDG, Globus GT2 (local resources) & AFS/LSF (ENEA)
 - Integration of non-grid systems (e.g. EO catalogues, OpenGIS services, ESA archive)
- Increasing GRID awareness in EO
 - New applications under way : GREASE, GOMOS, MERIS
 - Cross-fertilization of associate organizations & projects : CEOS-GRID, Space GRID, Oxygen
- Collaboration in EDG working groups
 - Collaborations with MW, ATF, SCG, AWG, QAG
- EDG Testbed evaluation
 - Generate feedback to MW developers, ATF & AWG (D9.3, D9.6)
 - Evaluation of EDG 2.0 Sep-Dec, EO Demo porting to run on EDG 2.0 (D9.5)



Work plan Sep-Dec : Tasks & Deliverables

- Task 9.4 - Ozone / Climate Application
 - GOME processing / validation deployment on EDG 2.0
 - in stand-alone mode (UI / command-line tools)
 - access via WebMap Portal / EO GridEngine
 - access via GridSurfer / EO GridEngine
 - GOMOS deployment - development of validation procedure
 - Further development of EO Use Cases / Requirements
 - (AWG / ATF / QAG)
 - D9.5 : Final Evaluation (Prototype demonstration and report)



Workplan Sep-Dec : Evaluation of EDG 2.0

- New features of EDG 2.0 to be evaluated :
 - information system (R-GMA), GLUE schema
 - improved JSS capacity & reliability
 - job partitioning, check pointing
 - Replica Location Service
 - new metadata capabilities
 - Storage Element
 - disk cache interfaced to Archive system
 - BrokerInfo interface
 - improved security & data access control
 - MPI
 - others ?
- Re-run EO GOME data challenge :
 - run **several hundred jobs** simultaneously
 - replicate, locate, retrieve & access **tens of thousands of files**
 - process up to **7 years of global observations**



Workplan Sep-Dec : EDG Activities

- Meetings planned, key topics, documents, inputs etc.
- AWG
 - Joint recommendations, prioritized requirements, usecases WP8/9/10
 - Definition of application interface layer
 - Evaluation of GAT toolkit (Grid Lab)
 - Features required in EDG 2.1
- ATF
 - EO Requirements
 - ...
- QAG
 - Quality metrics
 - ...



Workplan Sep-Dec : Next demonstrations

- EO Grid-on-demand Portal
 - deployment on new Grid Engine + infrastructure
 - processing multiple orbits
 - submit & monitor multiple processing/validation jobs on multiple grids
 - data transfer from (to ?) AMS
 - metadata handling by RLS ?
 - interfacing to new EDG security
- OPERA
 - ...
- GOMOS
 - development of validation procedure
- Other ?
 - ...