



CrossGrid – DataGrid Collaboration (Framework)

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cresscrid

A new IST Grid project space (Kyriakos Baxevanidis)



- Links with European National efforts
- Links with US projects (GriPhyN, PPDG, iVDGL,...)

Applications

EGSO

CROSSGRID

GRIA

EUROGRID

GRIDLAB

DATAGRID

Middleware DAMIEN

GRIP

& Tools

DATATAG

<u>Underlying</u> <u>Infrastructures</u>



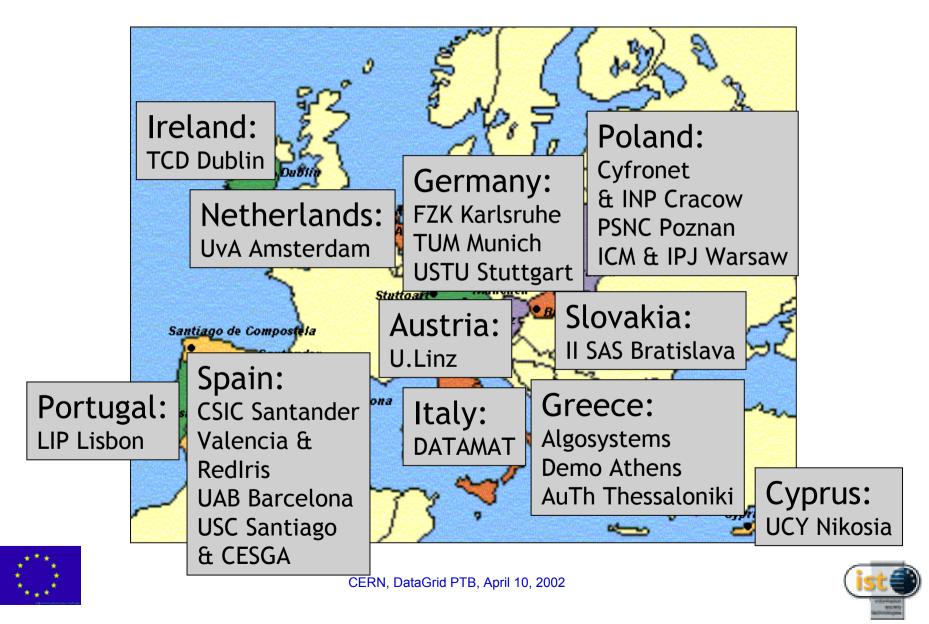
Science







CrossGrid Collaboration

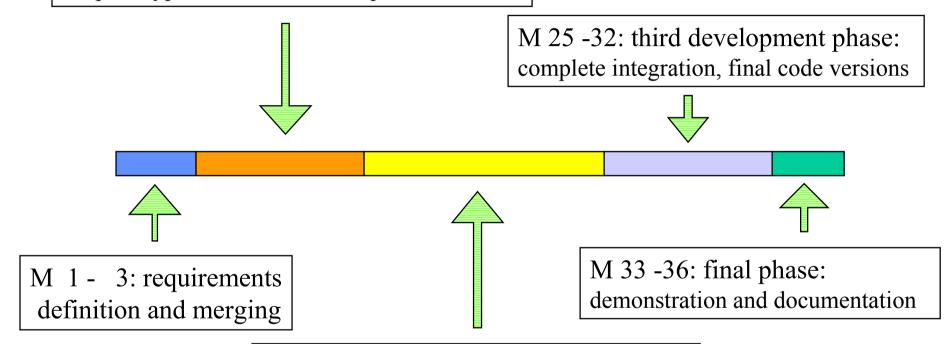






Project Phases (from March 1, 2002)

M 4 - 12: first development phase: design, 1st prototypes, refinement of requirements



M 13 -24: second development phase: integration of components, 2nd prototypes









Layered Structure of X#

Interactive and Data Intensive Applications (WP1)

- Interactive simulation and visualization of a biomedical system
- Flooding crisis team support
- Distributed data analysis in HEP
- Weather forecast and air pollution modeling

HLA	Grid Visualization Kernel	Data Mining
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Grid Application Programming Environment (WP2)

- MPI code debugging and verification
- Metrics and benchmarks
- Interactive and semiautomatic performance evaluation tools

DataGrid GriPhyN

Services

New CrossGrid Services (WP3)

- Portals and roaming access
- Grid resource management
- Grid monitoring
- Optimization of data access

Globus Middleware

Fabric Infrastructure (Testbed WP4)

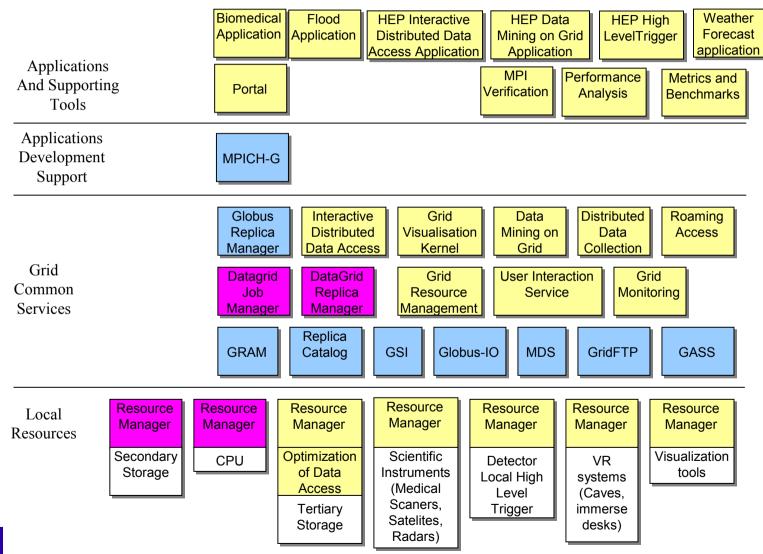








CrossGrid Architecture











Grid Architecture

Similar layered structure, similar functionality of components

- Interoperability of Grids
- Reuse of Grid components
- Joint proposals to GGF
- Participation of chairmen of EDG ATF and X# AT in meetings and other activities









Applications

- Interactive applications
 - Methodology
 - Generic structure
 - Grid services
 - Data security for medical applications
- HEP applications
 - X# will extend functionality of EDG sw









Benchmarks and Application Monitoring

- Information
 - about application performance
 - about performance of grid components
- Used for testing of EDG software









Testbed

- Goal: Interoperability of EDG and X# testbeds
- Joint Grid infrastructure for HEP applications
- Already X# members from Spain, Germany and Portugal are taking part in EDG testbed
- Collaboration of testbed support teams
- Mutual recognition of Certification Authorities
- Elaboration of common access/usage policy and procedures
- Common installation/configuration procedures









Software Testing

X# will test early beta releases of EDG middleware;
this sw will be integrated with X# sw









Dissemination

- Joint Industry and Research Forum
- Exchange of deliverables









Management

- Regular contacts of project managements the project managers members of EDG PMB and X# Steering Group
- Exchange of operation procedures
- Exchange of reviewers



