

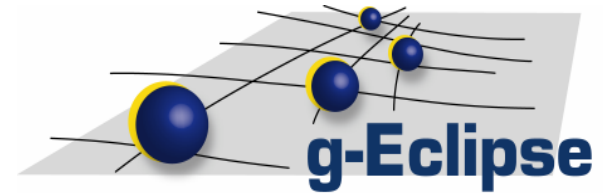
Creation review:

g-Eclipse – an integrated Grid enabled environment (IGE)

12. October 2006

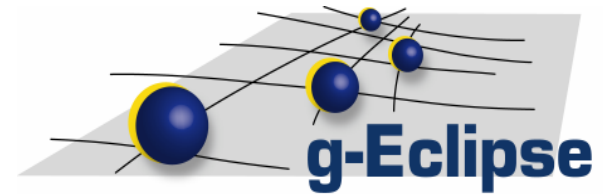
Harald Kornmayer (Forschungszentrum Karlsruhe GmbH)
Markus Knauer (INNOOPRACT)
Jochen Krause (INNOOPRACT)

Overview

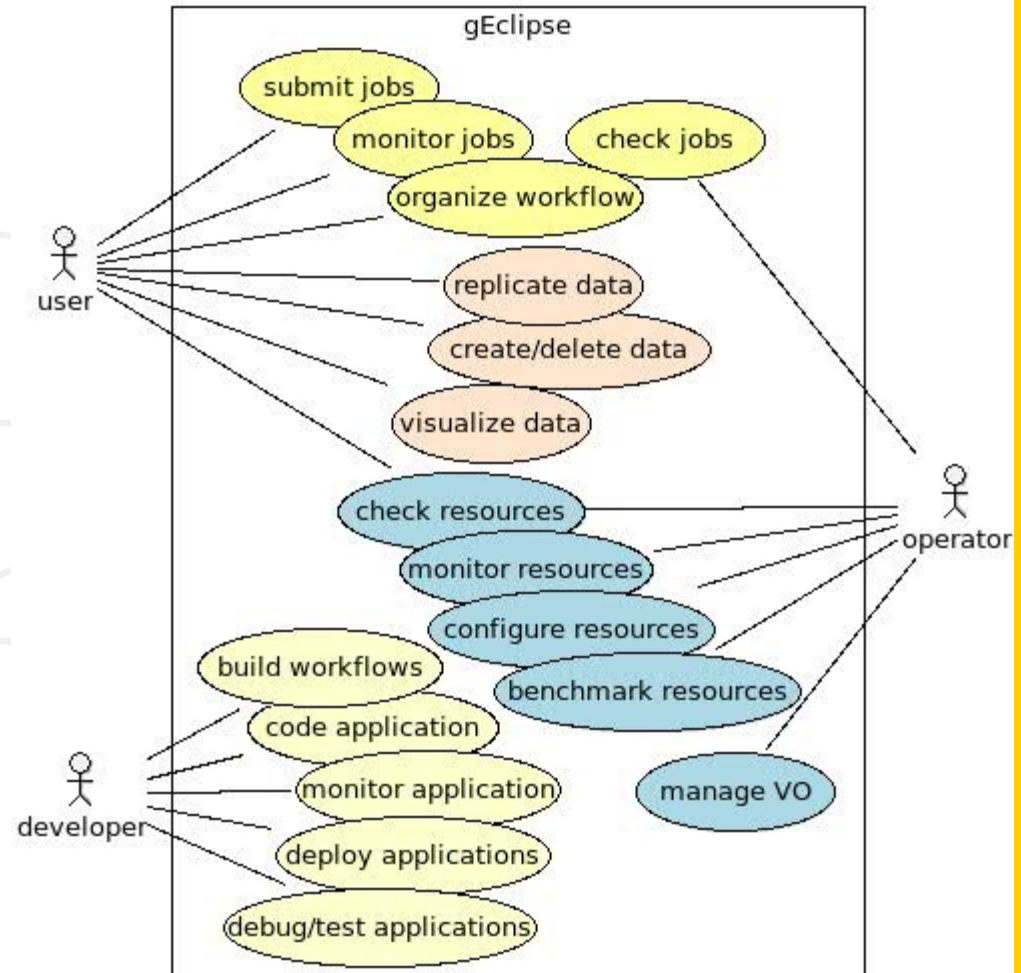


- Grids for e-Science
 - Many infrastructures build over the last few years
 - to integrate seamlessly distributed resources
 - on national and international levels
 - Commercial applications start to move to Grid infrastructures
 - Grid Infrastructures have an inherit complexity
- g-Eclipse will offer easy access to Infrastructures
 - Based on a reliable platform → Eclipse
- Currently no integrated support exists for the different roles of Grid users
 - Grid applications users
 - Grid resources providers and operators
 - Grid application developers
- Currently different Grid middleware systems exist
- With the proposed g-Eclipse project, Eclipse enters the area of Grid applications and e-Science.

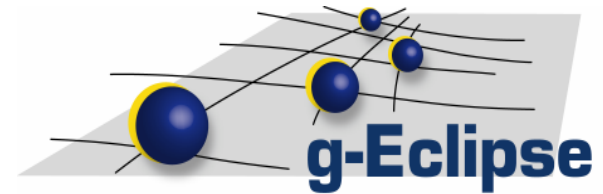
Scope



- Development of a general framework
 - "core Grid plug-ins" for the g-Eclipse platform.
 - Independent of the underlying middleware
- Supporting different User roles:
 - User
 - Operator
 - Developers
 - See picture
- Exemplary implementation of the integration of the widely deployed EGEE middleware gLite in first year
 - A second middleware in year 2



Participants



- 6 partners
 - 5 academic partners
 - 1 industrial partner with profound Eclipse experience



Forschungszentrum Karlsruhe
in der Helmholtz-Gemeinschaft



JOHANNES KEPLER
UNIVERSITÄT LINZ
Netzwerk für Forschung, Lehre und Praxis

INNOOPRACT



University of Cyprus



The University of Reading

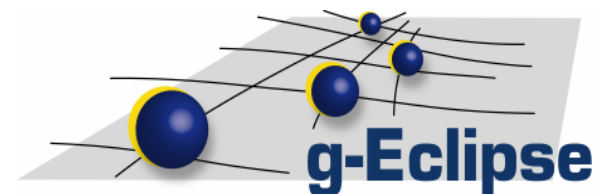
- 12 committers

- | | |
|---|--|
| – Harald Kornmayer (project lead) (FZK) | Profound JAVA development experience, Eclipse knowledge, Grid expert |
| – Markus Knauer (lead architect) (INNOOPRACT) | Profound experience in Java and Eclipse development |
| – Pawel Wolniewicz (PSNC) | Profound JAVA development experience, Grid expert |
| – Jochen KrauseEclipse (INNOOPRACT) | CEO of Innoopract and member of the Eclipse Board of Directors |
| – Katarzyna Bylec (PSNC) | Student |
| – Thomas Koeckerbauer (JKU) | PhD student |
| – Rafa Lichwala (PSNC) | Solid Java development experience, Grid expert |
| – Mateusz Pabis (PSNC) | Student |
| – Martin Polak (GUP/JKU) | Profound development experience, Grid expert |
| – Mathias Stuempert (FZK) | Profound development experience |
| – Ashish Thandavan (RUR) | PhD student |
| – George Tsouloupas (UCY) | Profound Java development experience, Grid expert |

- Founded by the European Commission

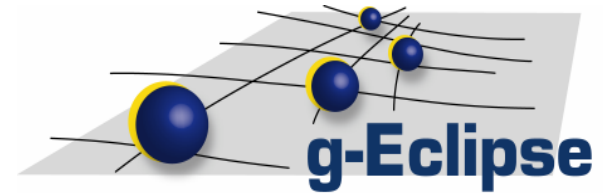
- contract number 034327

Community



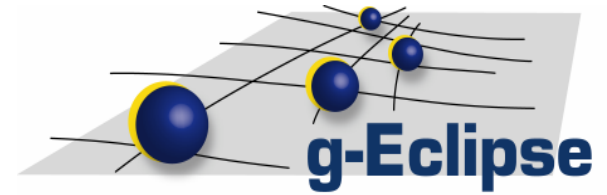
- Grid infrastructures for e-Science are emerging and will be used by many scientists
 - Currently within the EGEE project, > 150 scientific “Virtual Organizations” started to migrate to the EGEE infrastructure (www.eu-egee.org)
 - Beyond the European Grid projects, the g-Eclipse project was already contacted from
 - Australia
 - Brazil
 - The project created already some awareness in the Grid community

Collaboration



- with PTP
 - Exchange of tools possible
 - PTP develops tools for parallel application development
 - g-Eclipse develops tools for distributed Grid resources
 - Exchange of tools will create synergies
- DSDP and target management
 - Collaboration in “standard” access tools like SSH, SFTP, ... in the Target Management subproject (RSE)
- We see potential collaboration and started to contact the other projects

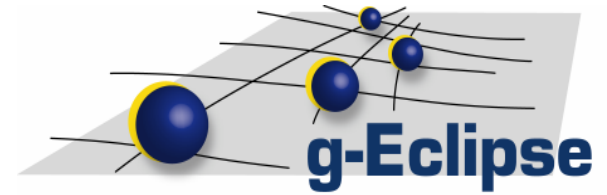
Namespace



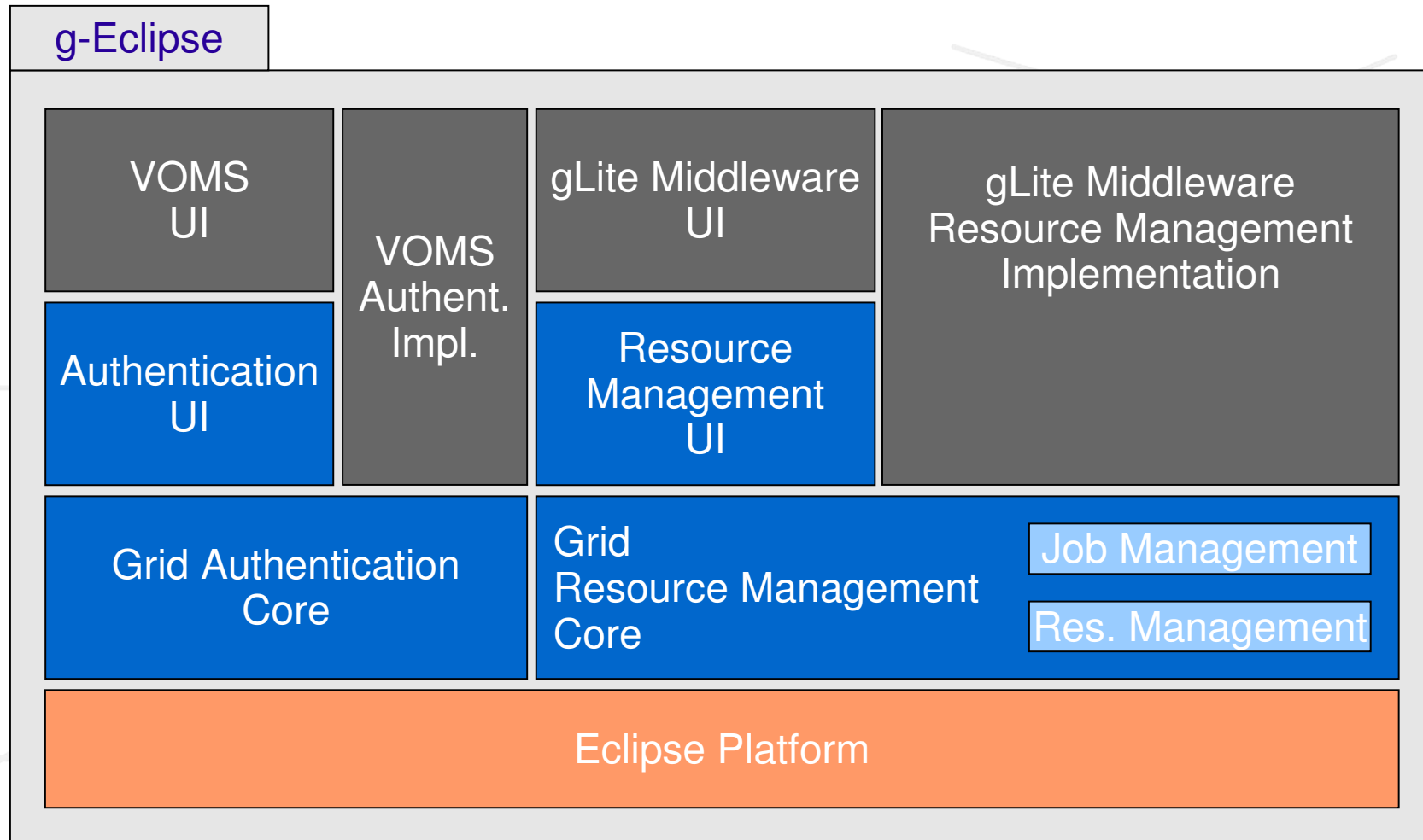
- Due to requirements from the funding body
 - eu.geclipse.*



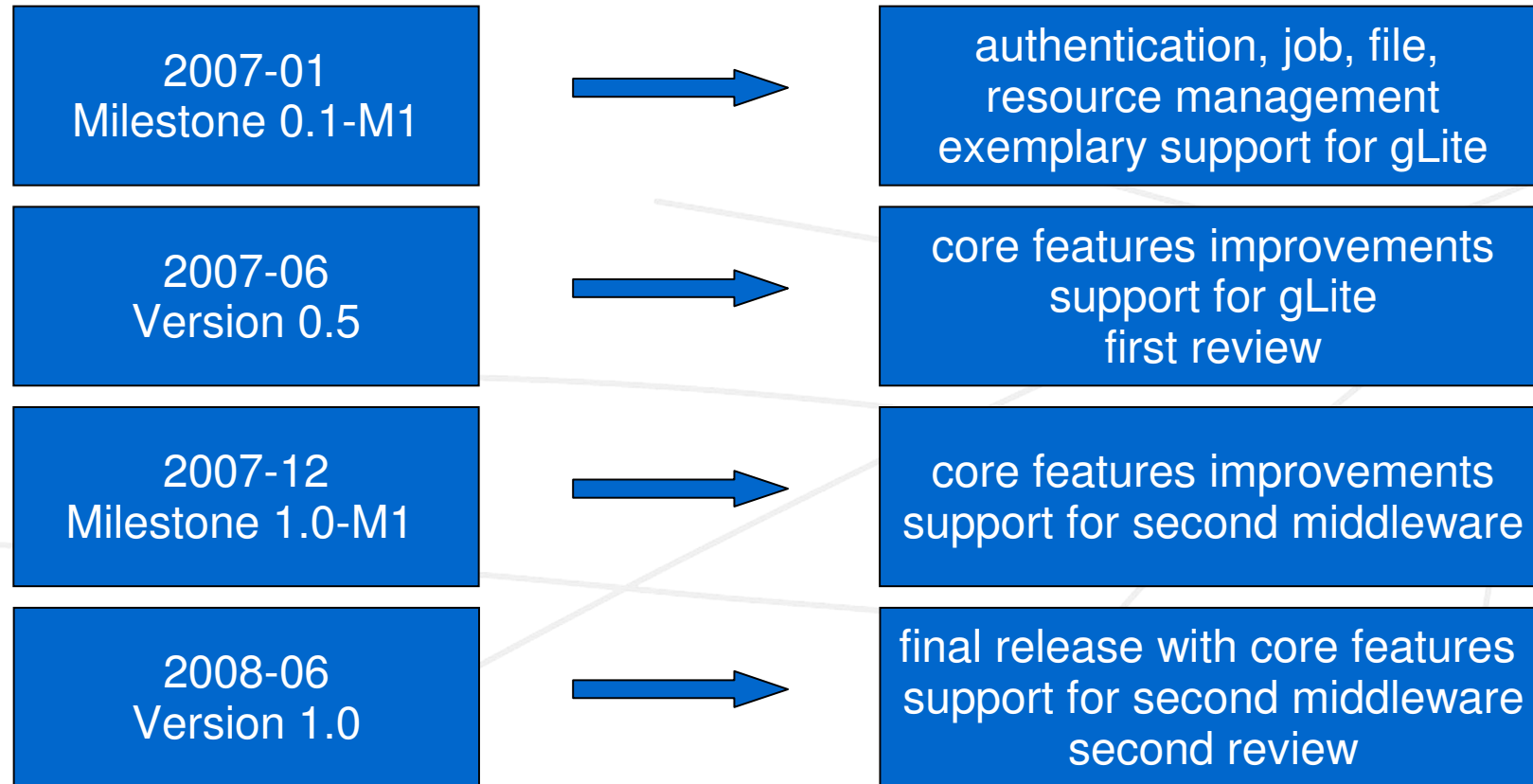
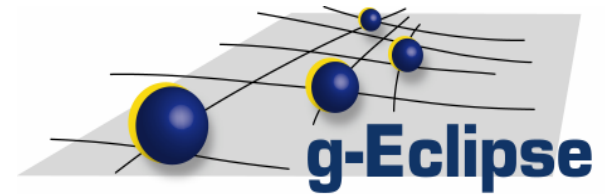
Architecture overview



Architecture with exemplary support of the gLite middleware on top of the g-Eclipse core



Roadmap



- for each of the releases separate milestones will be defined on 4-6 weekly periods