



European Grid Initiative



Status report on UMD implementation

Mirco Mazzucato: Introduction

Laurence Field: Tech. WG

Steven Newhouse: Soft. Process WG

Michael Gronager: Requirements WG

UMD Meeting in Munich February 4th 2009

Next UMD Workshop: Oslo 11-12 March

Aims

- Accelerate the process of defining and implementing a first version of UMD
- Created 3 Working groups to start the implementation work immediately
 - Need to put together different EU Consortia and developers
- Constituted by representatives of the 3 Consortia
- Proposed to deliver some work within a couple of months, in time to provide guidelines to insure a smooth transition towards EGI
- Not meant to replace any existing body
- Allow an adequate preparation of a middleware application for funding at the coming EU calls.

WG Mandate

- **Mandate:**
- **WG1:** Provide guidelines on the function taxonomy (ARC/gLite/UNICORE) and current standards landscape
- **WG2:** Define the UMD process and organization for delivery within the EGI model
- **WG3:** Collect wishes from developers, operations and users on missing functionalities and define a roadmap for the future UMD evolution
- **Outcome:** Documents defining initial UMD vision on these 3 areas

Plan

- EU Middleware Consortia have started to work to define how to arrive to first UMD implementation in 2-3 months
- Process open to external contribution: contact WG coordinators
 - Oslo workshop on March 12 ; WG meetings on 11th
- Looking forward to collaborate with other EGI WGs looking at the transition issues:
 - Operations and Security
 - Business model
 - SLAs
 - SSC and User Forum
 -
- Advance preparatory work while waiting EGI Council and the setting up of the EGI Middleware Collaboration Board and Middleware Unit

A faint, grayscale topographic map of Europe serves as the background for the slide. The map shows the continent's outline and some internal terrain features.

Report from the Technical Working Group

Lawrence Field

Mandate

- Provide a document for the OSLO workshop
 - Function taxonomy (ARC/gLite/UNICORE)
 - due to the limited time and resources components from other middlewares will be included later
 - Current standards landscape
 - take the work of the OGF PGI into account
 - identify a subset for UMD
 - Identification of areas that may require standardisation work
 - Estimate efforts needed for
 - maintenance and support
 - convergence towards standards
 - new developments
 - New development work
 - not in the initial version

Group Organization

- Two technical experts from each middleware stacks
 - Nordugrid/ARC: Balazs Konya, Aleksandr Konstantinov
 - Glite/EGEE: Laurence Field, Moreno Marzolla
 - Unicore/DEISA: Bernd Schuller, Morris Riedel
 - unfortunately with non-dedicated, limited time
- Weekly phone meetings
 - 12 February: Start-up meeting
 - Discussed the scope: survey, inventory of middleware components
 - 20 February: 2nd meeting:
 - Worked on the skeleton document
 - 27th February: 3rd meeting:
 - progress overview
- Group's output
 - “Survey of potential UMD components”

EGEE User Story public draft expected by mid March 2009

Progress

- Quickly organized the group and work
 - Setup the Google Sites page
 - Distributed the workload
- Gathered input from the various middleware groups
 - Mainly based on existing functional descriptions
 - Required for EU Reviews 😊
- Started to produce the document
 - Uploaded document skeleton
 - Defined the template for describing the middleware components

Component Template

- Name
- Description
- Basic information
 - Component type:
 - Developer:
 - Documentation:
 - Code repository:
 - Development language:
 - Build environment:
 - Download:
 - Licence:
- Status
 - Maturity:
 - Usage:
 - Interface maturity:
 - Support status:
 - Development plans:
- Distribution/Availability
 - Middleware stack:
 - Standalone usability:
 - Software dependencies from the same stack:
 - Software dependencies from external providers:
 - Component dependencies:
 - Supported platforms:
- Service component information
 - Public Interfaces:
 - Aligned security:
 - Capabilities:
- Library component information
 - Consumers:
 - Language binding:
- Interoperability/Standards
 - Standard-compliance:
 - Interoperable components:
 - Additional Standards:
- Cost estimates
 - Maintenance/support effort:
 - Standard convergence effort:
 - New development effort:
- Other
 - Any other kind of information

Report from Software Process Working Group

Steven Newhouse

The background of the slide is a light gray, semi-transparent map of Europe, showing the continent's outline and some internal geographical features like coastlines and major rivers.

EGI: Managing the Software Process

Steven Newhouse, Francesco Giacomini,
Oliver Keeble, Markus Schulz, Aleš Křenek,
Achim Streit, Oxana Smirnova & Farid
Ould-Saada
[ARC, gLite and UNICORE]

Remit

- Relationship between EGI.org and the software providers within UMD
 - ARC, gLite, UNICORE
 - Other providers: Globus, dCache, Condor, ...
- Roles and responsibilities of the different actors
 - Relevant staff within EGI.org
 - MCB: Balance between strategy and tactics
- Glossary:

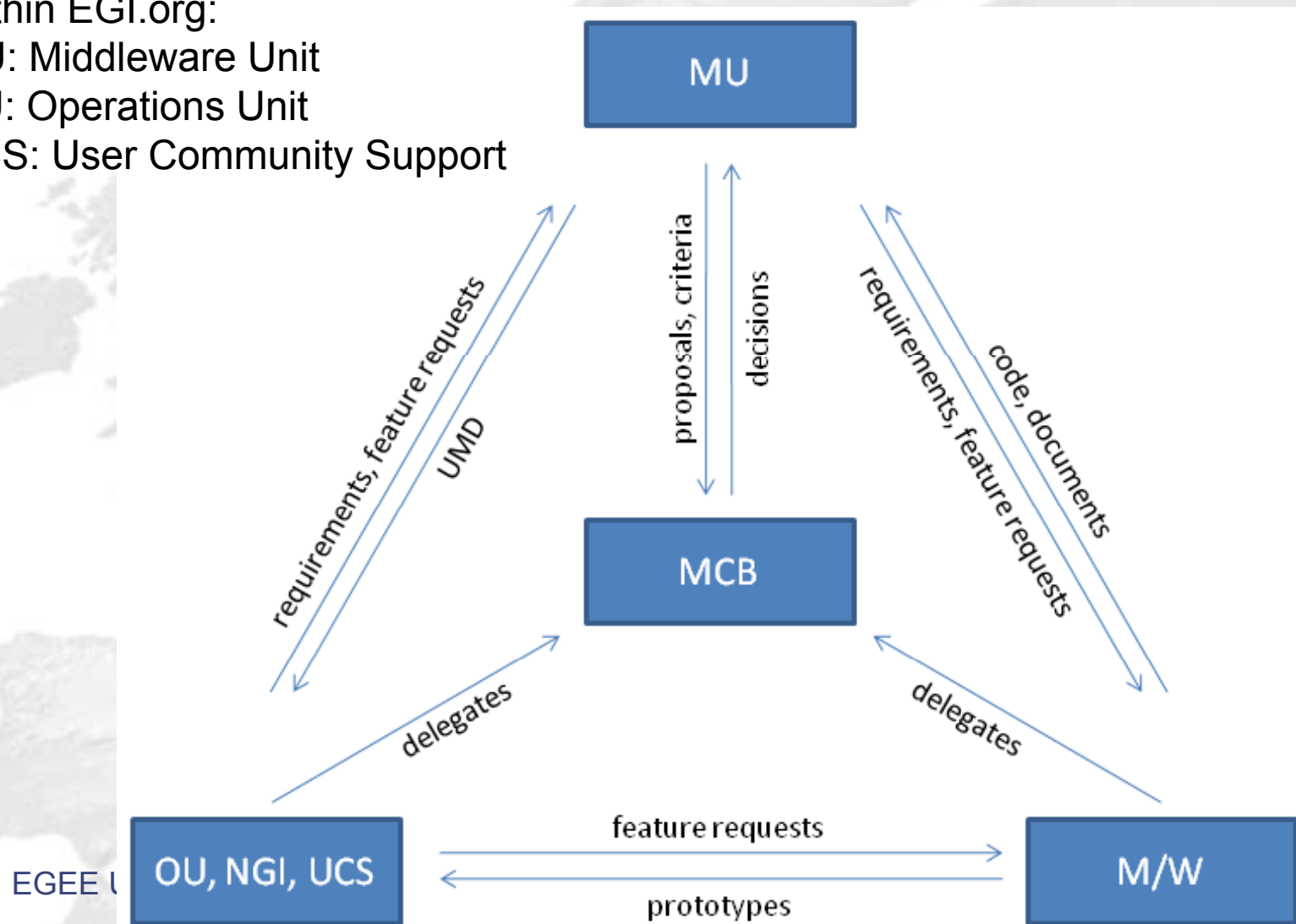
Key Relationships

Within EGI.org:

MU: Middleware Unit

OU: Operations Unit

UCS: User Community Support



Conclusions: Software

- EGI focused on software maintenance and releases
 - Any bugfix/minor issue triaged and assigned to relevant team
 - Response covered by maintenance agreement
 - Any new major/enhanced functionality requests collected and made available to software providers
 - Subsequent development done through non-EGI funding
- Software providers must provide production ready code
 - Able to run and perform in environments defined by EGI
 - Certification burden and responsibility with software provider
 - EGI through MCB defines generic & component-specific criteria
 - Lightweight verification to avoid central release bottleneck

Conclusions: Technical Decision Making

- MCB: Strategic
 - UMD roadmap approval
 - Acceptance criteria
 - Definition of technical policies
- Chief Technical Officer: Tactical
 - Requirement categorisation & prioritisation
 - Day to day technical issues

Next Steps

- Feedback
 - Welcomed now at the meeting
 - Through the wiki page
- Finalising the overview ‘white paper’
 - Discussions at a meeting in Oslo next week
- Drilling down into more details
 - UMD Roadmap: Criteria, scope & initial components
 - Software Life Cycle: Release process
 - Generic and Component Specific Acceptance Criteria



European Grid Initiative



EGGI Workshop Operation and User Requirement Working Group

at OGF25/EGEE-UF
Catania, Italy

Michael Gronager, NDGF Director

Operation and User Requirement Working Group

- Representatives:
- EGI_DS:
 - Roberto Barbera
- DEISA:
 - Stefan Heinzl
 - Denis Girou
- EGEE:
 - Steve Traylen
 - Johan Montagnat
- NDGF:
 - Josva Kleist
 - Michael Gronager

Mandate

- Collect wishes from operations and users on missing functionalities and define a roadmap for the future UMD evolution and come up with concrete ideas for future UMD developments
- Outcome:
 - wish list for 2 years
 - vision for 5 years

Comments / Reservations

- Hit by holiday season
- Group had only one phone meeting
- Quite different infrastructures:
 - DEISA: few very large sites of heterogenous sizes
 - EGEE: Many homogenous sites of various sizes
 - NDGF: Many heterogenous sites of various sizes

DEISA Users

- Promote uniform interface to resources / tighter coupling to batch systems
- Advanced reservation for Multiphysics
- MPI-3: need for fault tolerance, understanding of the topology
- File transfers and staging
- Authentication, Authorization and Accounting
- **Scientific portals**

EGEE Users

- Better Support for MPI (1 and 2)
- Interactive jobs
- Portals / gateways
- Better job priority support

NDGF Users

- Certificate / proxy stuff should be hidden for the user (AAA...)
- VO Managers should be able to install / maintain VO software
- Better node/core/interconnect (topology) description
- Tighter integration with batch systems
 - Job suspend/resume, priorities

EGEE Operation

- Support for more OS'es (UI and WN)
- Better logging and instrumentation
- Documentation and release notes
- Better batch system integration
- Easier configuration
- Better integration of info sys and m/w

NDGF Operation

- Better support for "configure, make, make install" installations
- Service Instrumentation
- Tighter batch system integration:
 - Suspend / resume support
 - Common accounting on Irms level

Common Considerations

- Support for many platforms is important
- AAA is important and needs to cross traditional HPC/HTC domains
- MPI/OpenMP is important though different infrastructures are at different “levels”
- Instrumentation of Services
- User friendly Scientific Portals

Visions

- All infrastructure services are for all domains – not just either HPC or HTC (e.g. Common accounting, ids)
- Promote use of de facto tools with add ons rather than self duplicate functionality tools