



Enabling Grids for E-scienceE

JRA1

Middleware re-engineering

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*EGEE-II - EGEE-III Transition Meeting
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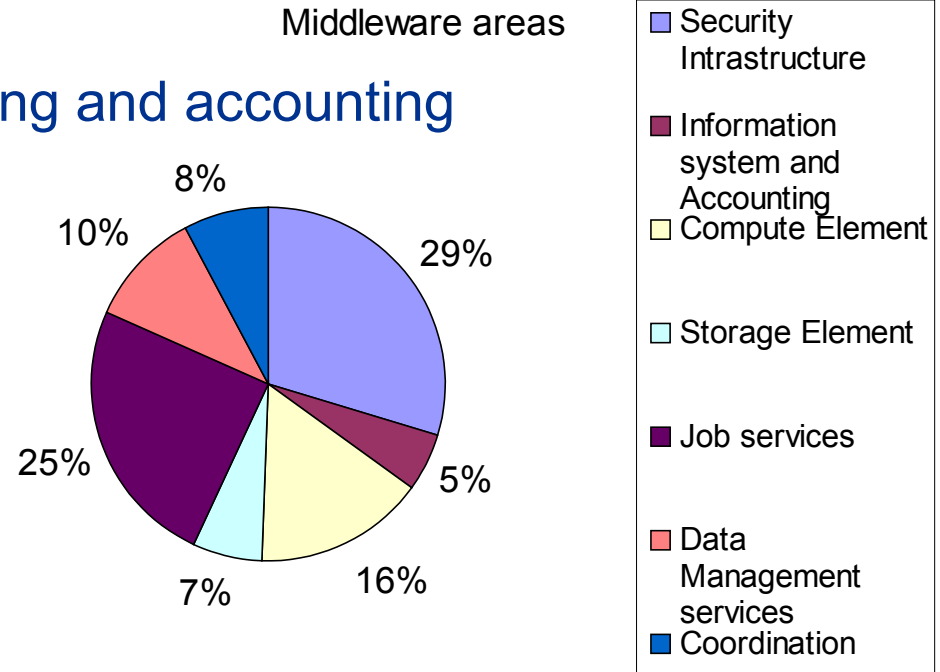
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- **Move towards a sustainable infrastructure by the end of the project**
- **JRA1 will provide and maintain selected middleware services of the gLite distribution**
- **Requirements from:**
 - users: functionality and performance
 - operations: manageability and deployability
- **Attention to interoperation**
 - converge on established standards, in particular from OGF
 - contribute experience through OGF-Europe
- **Multi-platform support**

- **SA3**
 - manage and coordinate the process of building deployable and documented middleware distributions
- **NA4**
 - ensure that Grid technology and the EGEE infrastructure are used successfully by a broad spectrum of scientific collaborations
- **SA1**
 - operate the EGEE production infrastructure
- **SA1, SA3 and JRA1 coordination in the Engineering Management Team (EMT)**
- **NA4, SA1, SA3 and JRA1 coordination in the Technical Management Board (TMB)**

- **Foundation services**
 - security infrastructure
 - information system, monitoring and accounting
 - compute element
 - storage element
- **Higher-level services**
 - job services
 - data management services



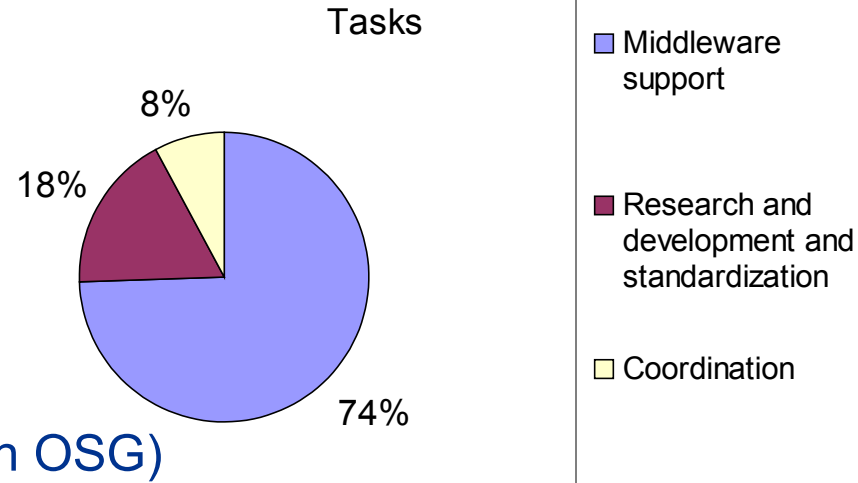
- **Overall effort is 461 PMs (~19 FTEs)**
 - it was 1212 in EGEE-II (-62%)

- **TJRA1.1: Middleware support**
 - maintain and gradually improve the reliability, performance, usability, and manageability of the existing services
 - fix bugs
 - *only through savannah, no more direct interaction with GGUS*
 - address short/medium-term requests from TMB
 - *may require development of new code*
 - internal unit testing
 - *integration testing done together with SA3 in the context of Clusters of Competence*
 - define the gLite releases together with SA3
 - web page for middleware users
 - 343 PMs

- **R&D and Standardization**
 - security
 - new authorization framework
 - *design being finalized*
 - SAML, XACML
 - storage
 - SRM
 - job management
 - BES, JSDL
 - information system
 - GLUE
 - 82 PMs

- **Activity coordination**

- activity leader (F. Giacomini)
- deputy activity leader (J. White)
 - representative in the QAG
- security architect (C. Witzig)
 - Security Coordination Group
 - Middleware Security Group (with OSG)
- 36 PMs



- **Four clusters**

- INFN and ED; CERN; CESNET; UH.HIP, FOM, SWITCH and UNIMAN
- one leader per cluster
 - A. Ghiselli, A. Frohner, A. Krenek, J. White
 - JRA1 steering group

- **All-hands meetings twice per year**

- more focused meetings are possible

- **“While in EGEE-II JRA1 and SA3 have been loosely coupled, a significant part of the testing and release preparation work in EGEE-III will be carried out by SA3 partners close to JRA1 partners, forming together Clusters of Competence.”**
- **“distinguish between testing and certification whereby testing leads to production readiness of a component and will be carried out by SA3 teams that are closely linked with JRA1 teams and certification ensures that after modifications the components still work inside the stack [...] and will be carried out by the SA3 certification team.”**
- **Keep and expand the approach started with Experimental Services**
 - early involvement of SA1 and VOs in the certification process

- **The limited manpower for software development needs a light and clear software process**
 - including the availability of adequate tools to manage efficiently the software lifecycle
 - ETICS (it must work!)
 - CVS
 - savannah
 - designed together with SA3
 - We follow the agreed process, which is monitored in the EMT
 - Adjustments will be made as necessary

Component	PMs support	PMs R&D	Partner
Security Infrastructure			
VOMS/VOMS-Admin	24	6	INFN
Authorization Services	18	48	SWITCH, FOM, INFN, UH.HIP
glexec	11	0	FOM
Delegation, TrustManager	12	0	UH.HIP
GridSite	12	0	UNIMAN
Proxy Renewal	6	0	CESNET
	83	54	
Information System			
BDII	20	4	CERN
	20	4	
Compute Element			
BLAH	12	0	INFN
CREAM	54	6	INFN
	66	6	
Storage Element			
DPM	18	0	CERN
GFAL	12	0	CERN
	30	0	

Component	PMs support	PMs R&D	Partner
Job Services			
gLite-WMS	66	6	INFN, ED
Logging & Bookkeeping	42	0	CESNET
	108	6	
Data Management Services			
lcg_utils	6	0	CERN
FTS	6	0	CERN
LFC	12	0	CERN
EDS, including Hydra	12	12	UH.HIP
	36	12	

Activity	PMs	Partner
Coordination		
Activity management	18	INFN
Activity deputy	6	UH.HIP
Security Architect	12	SWITCH
	36	

Deliverable No	Deliverable title	PM
DJRA1.1	Report on Middleware Service Engineering and plans for the second year	11
DJRA1.2	Report on EGEE- III Security	22
DJRA1.3	Final report on progress of middleware engineering	23

Milestone No	Description	Lead beneficiary	PM	Comments
MJRA1.1	Middleware support web page	INFN	1	Deploy a web site with the relevant information needed by middleware users (including other project activities). It should include links to support contacts to be kept up to date during the life of the project.
MJRA1.2	Activity Quality Assurance and measurement plan	UH.HIP	2	Definition of the activity- internal QA measurements and procedures. This will provide input to DNA1.2.
MJRA1.3.1	Functional Description of Grid Components and associated Work Plan	INFN	3	Functional description of services reengineered by JRA1 in response to TMB requirements including initial design and associated work plans. A live version of the work plans will be maintained on the Middleware web page.
MJRA1.4	gLite Security Architecture	SWITCH	4	Overall (global) security architecture of the gLite middleware. This document will summarize the current situation and describe the foreseen evolution during the lifetime of the project.
MJRA1.3.2	Update of Functional Description of Grid Components and associated Work Plan	INFN	11	Update of Grid Components functional description and associated Work plan.