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All-Activity Meeting
CERN
14 January 2004

Information Society

European Commission

Enabling Grids for E-science in Europe

Execution Plan for JRA4

EGEE is proposed as a project funded by the European Union under contract IST-2003-508833

Outline

- Activity description
- Deliverables/Milestones Y1
- Distribution of Effort
- Staff
- Product Breakdown Structure
- Work Breakdown Structure (initial three months)
- Risks
- Issues Related with other activities
- Changes in the TA
- Next steps before projects startup

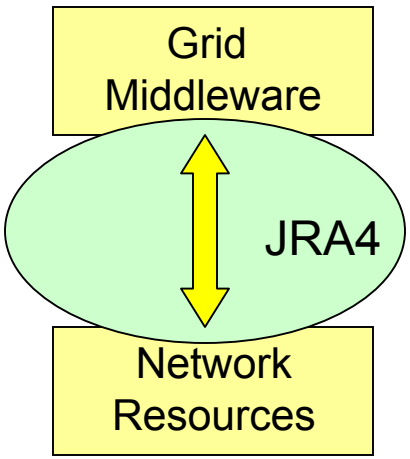
JRA4 Activity

Development of Network Services:

TJRA4.1: Network performance monitoring and diagnostic tools

TJRA4.2: Bandwidth allocation and reservation

TJRA4.3: IPv6 uptake



Deliverables/Milestones for Y1

TJRA4.1: Network performance monitoring and diagnostic tools

Project Month	Deliverable or Milestone	Item	Lead Partner
M3	MJRA4.1	Definition of initial network performance metrics and composite measurements required.	
M6	MJRA4.2	Requirements and use cases for monitoring and diagnostics tools for users, middleware and operations.	
M9	DJRA4.2	Definition of standardised network measurement query/response interfaces,with adequate authorization.	
M12	MJRA4.3	Prototype tool to access network performance metrics from a limited set of measurement points.	

Deliverables/Milestones for Y1

TJRA4.2: Bandwidth allocation and reservation

Project Month	Deliverable or Milestone	Item	Lead Partner
M6	DJRA4.1	Specification of interfaces • to network control plane, • to global resource reservation middleware for bandwidth allocation and reservation.	
M15	MJRA4.4	Prototype Implementation of bandwidth allocation and reservation service at specific network ingress points using static network configuration.	
M15	MJRA4.5	Specification of end-to-end bandwidth reservation system.	

Deliverables/Milestones for Y1

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TJRA4.3: IPv6 uptake

(for Month 18)

Project Month	Deliverable or Milestone	Item	Lead Partner
M18	DJRA4.3	Report on implications of IPv6 usage for the EGEE Grid.	

Distribution of Effort per Partner

Activity JRA4	Total Effort † (FTE)*	Total Effort (PM)	1st Year Effort (PM)	2nd Year Effort (PM)
UCL	3	72	36	36
CNRS	2	48	24	24
DANTE	1	24	12	12
DFN	0.5	12	6	6
GARR	1	24	12	12
Total	7.5	180	90	90

† Total effort=Funded+Unfunded
PM= efforts are expressed in Person Month.

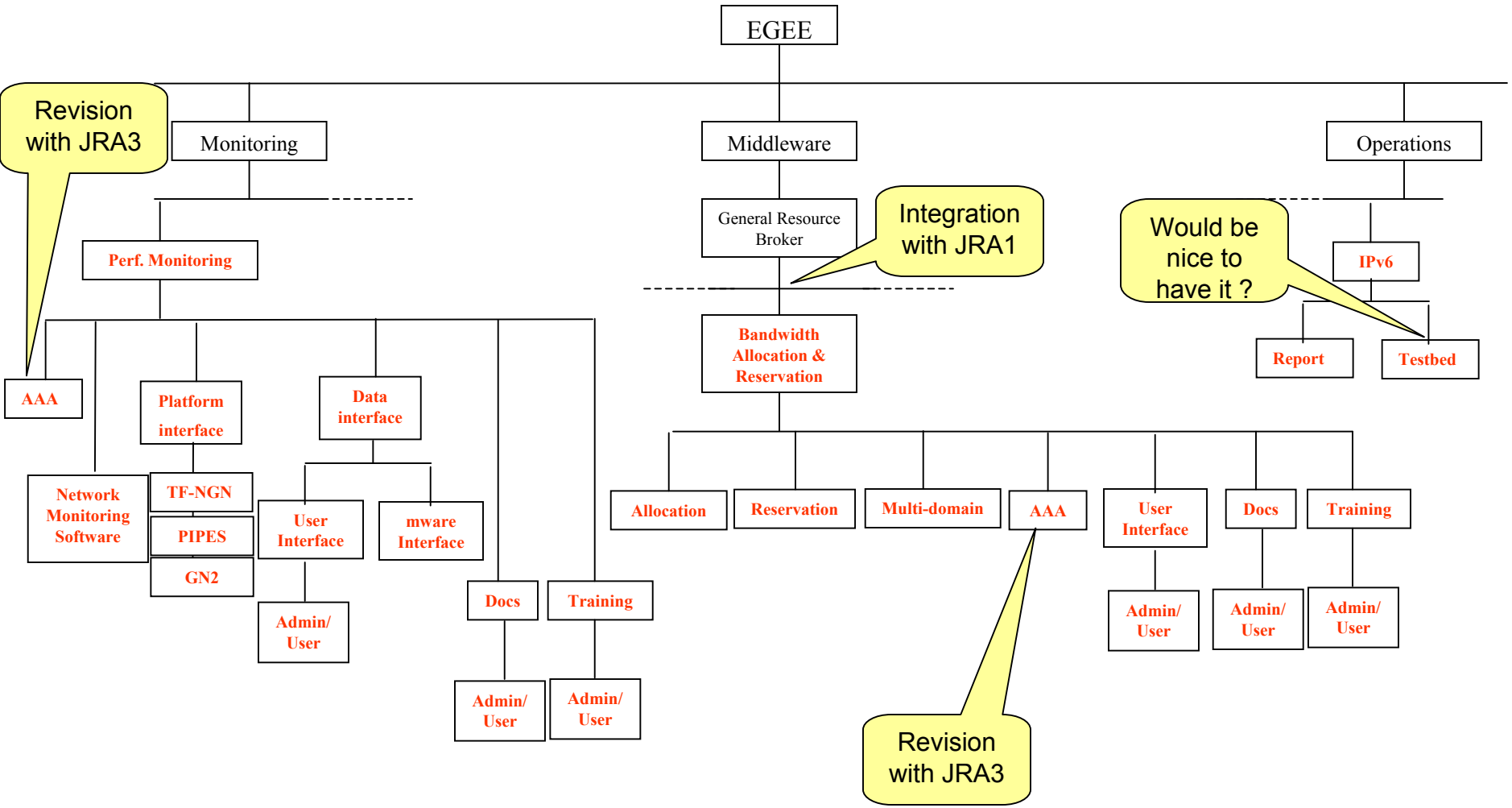
* FTE : Full Time Engineer

Staff

Collaborator name	Partner	Function / Area Interest	Provisional Date in Month 1 to 12	FTE †	F or UF *	Total PM
Javier Orellana	UCL	JRA4 Coordin.	1	1	F	12
X	UCL	Band Alloc Res	1	1	?	12
X	UCL	Band Alloc Res	1	1	?	12
Jean Paul Gautier	CNRS	Net Perf Mon	1	0.4	UF	4.8
Bernard Tuy	CNRS	IPv6	1	0.1	UF	1.2
X	CNRS	?	1	0.5	UF	6
X	CNRS	?	1	1	F	12
Nicolas Simar	**DANTE**	Net Perf Mon	1	0.5	F	6
X	**DANTE**	?	1	0.5	UF	6
Robert Stoy	DFN	Net Perf Mon?	1	0.5	UF	6
Gloria Vuagnin	GARR	Perf M./Band A.	1	0.5	F	6
X	GARR	?	1	0.5	UF	6
Total effort				**7.5**		**90**
Total from TA				**7.5**		**90**
Deviation				0		0

(†) **1=full time, 0,5 half time, ..** (*) **F=Funded, UF=Unfunded.**

Product Breakdown Structure



Work Breakdown Structure – MJRA4.1

TJRA4.1: Network performance monitoring and diagnostic tools

MJRA4.1: Definition of Performance Metrics and Composite Measurements

Task	Task Title	Month Start	Month End	Effort					
				UCL	CNRS	DANTE	DFN	GARR	TOTAL
		M	M	PM	PM	PM	PM	PM	PM
TJRA4.1.1	**Achieve MJRA4.1**	1	3						**5**
TJRA4.1.1.1	Study of GGF NMWG schema	1	2				1		1.5
TJRA4.1.1.2	Selection of the appropriate metrics	1	2				0.5	1	1.5
TJRA4.1.1.3	Definition of potential composite metrics	2	3				1	1	2

Work Breakdown Structure – MJRA4.2

TJRA4.1: Network performance monitoring and diagnostic tools

MJRA4.2: Requirements and use cases for monitoring and diagnostic tools for users, middleware and operations

Task	Task Title	Month Start	Month End	Effort					
				UCL	CNRS	DANTE	DFN	GARR	TOTAL
		M	M	PM	PM	PM	PM	PM	PM
TJRA4.1.2	Achieve MJRA4.2	1	6						**10.0**
TJRA4.1.2.1	Requirements and Use case for end users (Interaction with NA4)	1	5	1	2				3.0
TJRA4.1.2.2	Proposition and Use case for mw (Interaction with JRA1)	1	5	1	2			1	4.0
TJRA4.1.2.3	Requirements + Propositions and Use case for ops (Interaction with SA1/SA2)	1	5		2		1		3.0

Work Breakdown Structure – DJRA4.1

TJRA4.2: Bandwidth Allocation and Reservation

DJRA4.1: Specification of Interfaces for network control plane & global resource reservation middleware.

Task	Task Title	M Start	M End	Effort					
				UCL	CNRS	DANTE	DFN	GARR	TOTAL
		M	M	PM					
TJRA4.2.1	**Deliver DJRA4.1**	1	6						10
TJRA4.2.1.1	Study and Assessment of the Interfaces from existing projects	1	3	1.5					2
TJRA4.2.1.2	Definition of the Interface for global resource reservation with JRA1.Modelling with use cases or sequence diagrams	1	3	3					3
TJRA4.2.1.3	Survey of potential current sw (GARA and others). Comparing via Use cases. Recommendation either use one of them or build a new one	2	5	2					3
TJRA4.2.1.4	Study of the network equipment in use and access methods	3	5	0.5			0.5	1	2

Work Breakdown Structure – DJRA4.3

TJRA4.3: IPv6

DJRA4.3: Report on implications of IPv6 usage for the EGEE Grid

Task	Task Title	M Start	M End	Effort					
				UCL	CNRS	DANTE	DFN	GARR	TOTAL
		M	M	PM					
TJRA4.3.1	**Start DJRA4.3**	1	12						8
TJRA4.3.1.1	Study of IPv6 implication	1	12	2	4				6
TJRA4.3.1.2	Likely collaboration with 6NET	3	12	0.5	1.5				2

Building testbed for IPv6?, need official approval

Risks

Risk title	Class †	Level *	Description	Actions, responsibility, deadline
Hiring	M	2	Difficulties to hire people (latency + adequate profile)	
Glue	M	2	Activity resources dispersion, distributed team	Periodic conf. calls. Also regular F2F meetings
Requirements	T	1	Gathering of adequate application network requirements	
Software Compatibility	P	1	Possible software incompatibility between the current mware and JRA4 software available (GARA and others)	Understand towards where mware will evolve. Option of porting applications or building a new prototype
Platform versions	P	1	Long project. Platform versions can change, like the issues with Linux.	
Multi-platform issues	P	2	Need for JRA4 software to be multi-platform	For new prototypes, consider using JAVA
Status of Network Serv.	T	1	Network Services relying on other services not yet ready end to end.	Follow closely the net. deployment calendar

(†)M=Management/Organisation, P=Product, S= Service, T=technical (*)1=low, 2=Medium, 3=high, 4=critical

Issues related to other Activities

JRA1:

- Integration: interfaces JRA1-JRA4 using software available today.
- Modelling methodology (UML?): if any, which tools?
- Going on with the “Network Cost Function”, who JRA1/JRA4?

JRA3:

- Multi-domain Authentication/Authorisation ?
- Use of certificates from a CA?
- Use of firewalls / NATs?

Changes to the TA

Description	Require in:
If required , move of MJRA4.2 to **M3** from M6	Page 193 Table KK Page 198 Page 202
Therefore, we will rename the milestones: MJRA4.2 <-> MJRA4.1	
UCL will also work on the Performance Monitoring	Page 194 Table MM

Next steps before project startup

- Hiring people
- Set up collaboration with partners (CNRS, DANTE, DFN & GARR)
- Start dialog with other activities, mainly JRA1 and JRA3
- Mutual feedback with DANTE between JRA4 and GN2

Questions ?