



The ARDA Project status report

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Purpose of this meeting

- Project plan
 - Explain what contains and should contain
 - Get a green light today?
 - Rediscuss in May after the first milestone (detailed project definition)
- Status of the interaction with the experiment
- Logistics



ARDA working group recommendations

EGEE Middleware

- New service decomposition
 - Strong influence of Alien system
- Role of experience, existing technology...
 - Web service framework

ARDA project

- Interfacing to existing middleware to enable their use in the experiment frameworks
- Early deployment of (a series of) prototypes to ensure functionality and coherence



End-to-end prototypes

- Provide a fast feedback to the EGEE MW development team
 - Avoid uncoordinated evolution of the middleware
 - Coherence between users expectations and final product
- Guarantee the experiments are ready to benefit from the new MW as soon it becomes available
 - Expose the experiments (and the community in charge of the deployment) to the current evolution of the whole system, to be prepared to use it in the best and quickest way
- Move forward towards new-generation real systems
 - Prototypes should be exercised with realistic workload and conditions (experiments absolutely required for that!)
 - No academic exercises or synthetic demonstrations
 - A lot of work (and useful software) is involved in current experiments data challenges: this will be used as a starting point
 - Adapt/complete/refactorise the existing: we do not need another system!
 - Collaborative effort (not a parallel development)
 - Commonality is not ruled out, but it should emerge and become attractive for the experiments. Anyway not imposed "from outside"
 - Many users are absolutely required



Project plan

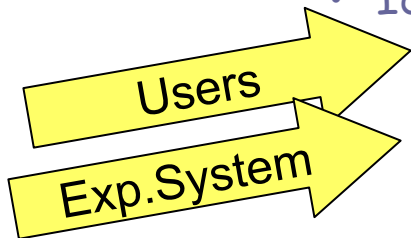
- One prototype per experiment
 - Formally, the project starts April the 1st
 - Preparation phase already started
 - Same pattern being proposed to each experiments
 - Interfacing to EGEE MW
 - Direct contribution into experiment-specific "Upper Middleware"
 - Focused dedicated effort to be added to the experiment system
 - Not a demonstration system to be added to the experiments plans
 - Mainstream activity

Milestone	Date	Description
1.x.1	May 2004	E2E x prototype definition agreed with the experiment
1.x.2	August? 2004	E2E x prototype using basic EGEE middleware
1.x.3	November? 2004	E2E x prototype improved functionality
1.x	December 2004	E2E prototype for experiment x, capable of analysis
2.x	December 2005	E2E prototype for experiment x, capable of analysis and production



ARDA Project first set up

- **LCG:**
 - Project leader (Massimo Lamanna/CERN)
 - 4 LCG staff (100% at CERN) matching the 4 EGEE staff
 - 1 more staff from LCG (100% at CERN)
 - About 3 FTEs from other sources (not always at CERN)
- **EGEE:**
 - 4 NA4 staff (Already selected. 3 persons start on April 1st, the fourth one on May the 1st)
- **Experiments:**
 - 4 experiments interfaces
 - Represent the experiments in project definition, implementation and evaluation
 - Identify and coordinate the experiment contributions
 - analysis groups in the experiments with whom the middleware people can work to specify the services and validate the implementations
 - "upper middleware" teams (experiment-specific MW)





Experiment interfaces

- Piergiorgio Cerello (ALICE)
- David Adams (ATLAS)
- Lucia Silvestris (CMS)
- Ulrik Egede (LHCb)



E2E prototype team

- **ALICE**
 - A. Peters and D. Feichtinger
- **ATLAS**
 - D. Liko and F. Orellana
- **CMS**
 - J. Andreeva and J. Herrala
- **LHCb**
 - A. Maier and J. Moscicki
- **LCG**
 - B. Koblitz and M. Lamanna
 - Russia (1 FTE? + some extra via NA4-experiments?)
 - Taipei (2 FTEs)

**Assignments agreed with
both the team
and the experiments
All people already in contact
with the experiments**



ALICE

- Redo the SC2003 system (clear task).
On the other hand, not much discussion yet (interface just nominated).
- Derek Feichtinger already in contact with ALICE/Alien/Proof (before the start of the project)
- Ready to start as soon PDC04 finishes



ATLAS

- Unclear situation ☹️
GANGA is an important (but not essential) element, but the overall strategy has not been defined yet.
DIAL and PROD systems are important and parts of ATLAS push to find a place for those in their prototype.
- Frederik Orellana already in contact with ALICE/Alien/Proof (before the start of the project).
- Unclear. Could be in delay even at the level of milestone 1.2.1 (Project definition).



CMS

- Not clear yet.
Very interested to have a new RefDB in the programme of work. This could fit FNAL interests.
Constructive relation with GAE.
Incremental approach understood (very good relationship with the experiment interface)
- Juha Herrala in strong contact with the experiment. Still in the learning phase.
- Decision phase still going on.



LHCb

- *GANGA* chosen as primary system for LHCb.
GANGA now provides a *GUI* with helper functionality (batch submission, basic job splitting, basic job merging?).
Interest to continue to use *DIRAC* for production activities (mainly as a middleware layer).
Objectives of *GANGA* aligned with the *ARDA* project (U.Egede; presentation in the last *GANGA* workshop)
- Very good contacts with the *GANGA* development team: Kuba Moscicki already an effective collaborator.
- Basically ready to go



ARDA @ Regional Centres

- “Deployability” is a key factor of MW success
- A few RCs (2?) will have the responsibility to provide early RC installation for ARDA
 - Understand “Deployability” issues
 - Extend the ARDA test bed
 - The ARDA test bed will be the next step after the most complex “EGEE Middleware” test bed
- Stress and performance tests could be ideally located in some RCs
 - This is for experiment-specific components (e.g. a Meta Data catalogue)
 - Leverage on RC local know how
- Good contacts with MSU-Dubna and Taipei
 - Many others interested



Coordination and forum activities

- The coordination activities would flow naturally from the fact that ARDA will be open to provide demonstration benches
- Since it is neither necessary nor possible that all projects could be hosted inside the ARDA experiments' prototypes, some coordination is needed to ensure that new technologies can be exposed to the relevant community
 - Transparent process
- ARDA should organise a set of regular meetings (one per quarter?) to discuss results, problems, new/alternative solutions and possibly agree on some coherent program of work.
- The ARDA project leader organises this activity which will be truly distributed and lead by the active partners



Logistics

- Office space
 - Slow but moving (target = bd. 510 first floor)
 - Maybe the space for new people before April 15th 😊
 - "All" space at the end of April 😞
 - Good perspective to get the whole bd. 510 first floor 😊
 - Excellent collaboration and help from John Harvey (Thanks!)
- Contracts
 - All are starting April the 1st but A. Maier 😊 (Agreed as much it was possible with the previous "employers". Experiments coordinators always in the loop)
 - FZK persons are becoming/will be hired as CERN Fellows (J. Herrala and B. Koblitz)



LCG FTEs

- I assume that the LCG persons (former EP/SFT) are entirely in the project
 - J. Herrala: ~100%
 - Kuba Moscicki: hand over present activities (~10%)
 - Discussed with Dirk (agreement to discuss in the PEB)
 - Dirk will miss ~50% FTE for collections
 - Kuba task requires 100% of effort
 - D. Feichtinger and F. Orellana: Manno's duties (~20%?)