

**From:** [Julia Andreeva](#)  
**To:** [Jamie Shiers](#)  
**Subject:** Re: FW: ACTIONS on preparation of additional information to ROSCOE part B draft 27  
**Date:** Tuesday, November 03, 2009 14:55:54

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Hi Jamie,

I made some changes in SA2 part following Cal's comments. Though I did not change it too much. I do not quite understand what he means asking to describe 'how the scientific gateway will be used in the community and how it will be deployed'...

Text is below:

The four main LHC experiments - ALICE, ATLAS, CMS and LHCb have individually developed specific workload and data management systems. In order to provide a global view of the status of LHC distributed computing, the experiment-specific systems and the generic monitoring frameworks need to be integrated.

The goal of this integration is to create a global monitoring infrastructure with dedicated portals providing a complete and reliable picture of the status of the LHC computing activities on the Grid and of the status of the distributed sites and services.

The general strategy consists of providing common solutions for handling monitoring data flow, from the data producer to the end user. This will reduce development and maintenance effort, decrease time required for enabling of the new functionality, and facilitate deployment of the monitoring systems.

#### Task1

Development of experiment-specific plug-ins for existing generic frameworks such as Service Availability Monitor (SAM), Service Level Status (SLS) and Nagios;

#### Task2

Enabling a common way of communicating between various components of the monitoring infrastructure via the Messaging System for the Grid based on the Apache ActiveMQ message broker;

#### Task3

Handling monitoring data in the central repositories at CERN (Oracle backend);

#### Task4

Development of monitoring portals serving the needs of various information consumers including the LHC user communities, WLCG support teams, WLCG management and support teams at the distributed sites. Besides web interface all information should be available in machine-readable format. Portals will evolve, adapting to new technologies and following user feedback and requirements.

On Tue, 3 Nov 2009, Jamie Shiers wrote:

> For the sections to be reduced / rewritten (see imperatively Calij's text under each WP: basically rewrite/shorten taking into account global strategy for that WP!): I propose the following coordinators (to be assisted as appropriate):

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> NA2: Jamie

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> NA3: Harry

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> SA1: Jamie

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> SA2: Julia

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> SA3: Massimo

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> Drafts of these new sections should be posted on the following agenda page by 15:00 today:

> <http://indico.cern.ch/conferenceDisplay.py?confId=72442>

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> (I will update the agenda soon!)

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> For the i°strictly one paragraph per VRCi± points I suggest that people consider the main issues we should cover and we discuss these are 16:00.

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> Cheers, Jamie

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> \*Progress beyond state-of-the-art\*

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> \*State of the Art\*

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> \*Examples of Scientific Work\*

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> See attached text from Massimo

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> EFSRI projects: text from Bob (see below):

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> Consortium description & relationship with NGIs. I propose we base this on WLCG with a comment regarding it's i°generalizationi± to the wider HEP community.

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> Concerning ESFRI projects, here is some suggested text

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> S-LHC:

>  
> The Large Hadron Collider (LHC) at CERN, now starting, will be the  
> energy frontier machine for the foreseeable future and it has the  
> highest priority to fully exploit its physics potential. Depending  
> on the nature of the discoveries made at the LHC, higher-statistics  
> studies of these phenomena would naturally call for an increase  
> in luminosity. This upgrade - referred to as Super-LHC - should  
> increase the luminosity by a factor ten. Super-LHC features in the European Strategy Forum  
> on Research Infrastructures (ESFRI) roadmap document [ref]. The HEP SSC will work with the team  
planning the Super-LHC to ensure their simulation models can be deployed on the EGI production grid  
infrastructure.  
>  
>  
> ILC:  
> The results of the LHC will be complemented with  
> measurements at a future electron-positron linear collider. Such a  
> linear collider will provide a unique scientific opportunity at the  
> precision and energy frontiers. This programme can be carried out  
> by the International Linear Collider (ILC) or, if multi-TeV energies are  
> needed, by a novel design called the Compact Linear Collider (CLIC)  
> which has the potential to deliver such energies. For essentially  
> every new physics scenario involving particles in the linear collider  
> energy range, detailed and very promising research programmes  
> have been formulated which will require on detailed computer simulations of the machine and  
detectors. The HEP SSC will work with the ILC and CLIC teams to ensure their simulation software can  
be deployed on the EGI production grid infrastructure.  
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> FAIR:  
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> The HEP SSC team will also have similar interactions with the Facility for Antiproton and Ion  
> Research (FAIR) which will soon become an international research  
> centre in Darmstadt (Germany). Construction Facility for Antiproton and Ion  
> Research (FAIR) has already started at GSI in Darmstadt.  
> FAIR will provide high energy primary and secondary  
> beams of ions of highest intensity and quality, including an  
> antimatter beam of antiprotons allowing forefront research  
> in five different disciplines of physics.  
> CERN will interact with the FAIR collaboration to exchange of knowledge and skills of the accelerator,  
detector and grid technology.  
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>  
> From: Jamie Shiers  
> Sent: Tuesday, November 03, 2009 09:12  
> To: hep-ssc-preparation (Preparation of a bid for a HEP SSC in EGI)  
> Subject: Update on preparation of additional information to ROSCOE part B draft 27  
> Importance: High  
>  
> Below is a summary of the actions / input for HEP. These are simply taken from v27 of the document.  
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> I already have some of the missing text and some volunteers. If you would like to be added to  
this list please reply asap - I will send out another mail no later than 10:00 with proposed names  
against the various actions.  
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> Cheers, Jamie  
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> Additional information to be provided:  
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- > State of the Art for Each VRC
- > Provide a very brief (1 paragraph maximum) of the current state of the art for your community.[C1]
- > Examples of Scientific Work
- > Provide examples of scientific work with exceptional visibility or socio-economic impact carried out on the current grid infrastructures that would not have been possible without the grid. (Limit the description to a single sentence adding a few sentences highlighting the importance of the result.)[C2]
- > 0.1.1.1. HEP
- > One paragraph (maximum!) description of how the ROSCOE work plan will advance your community beyond the current state of the art.[C3]
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- > Please fill in the following table with concrete examples of collaboration between the ROSCOE communities.[C4]
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- > Table 1: Scientific and Technical Interactions Between VRCs
- > HEP<sub>i</sub>LS
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- > Development and use of AMGA, Dashboard, Ganga.
- > Common use of the GEANT4 toolkit.
- > Collaboration through the PARTNER project.
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- > HEP<sub>i</sub>CCMST
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- > HEP<sub>i</sub>GO
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- > Interactions based on HEP community tools that provide monitoring information.
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- > HEP<sub>i</sub>PS
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- > HEP<sub>i</sub>CS
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- > Collaboration and use of AMGA.
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- > HEP<sub>i</sub>H
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- > LS<sub>i</sub>CCMST
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- > Deployment of molecular dynamics software codes.
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- > LS<sub>i</sub>GO
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- > LS<sub>i</sub>PS
- >
- > Common user communities regarding bioinformatics.
- >
- > LS<sub>i</sub>CS
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- > Emerging disease monitoring and modelling.
- > Scientific approaches to study protein interactions in the context of physiological studies.
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- > LS<sub>i</sub>H
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- > CCMST<sub>i</sub>êGO
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- > CCMST<sub>i</sub>êPS
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- > Common user communities around molecular dynamics and computational chemistry.
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- > CCMST<sub>i</sub>êCS
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- > 0.1. Collaborations with ESFRI Projects
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- > Add a table of ESFRI projects and how this project will interact with them. This table should include a column about whether the ESFRI has provided a Letter of Support for the project. The most current update to the ESFRI roadmap is available here:
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- > [ftp://ftp.cordis.europa.eu/pub/esfri/docs/esfri\\_roadmap\\_2008\\_update\\_20090123.pdf](ftp://ftp.cordis.europa.eu/pub/esfri/docs/esfri_roadmap_2008_update_20090123.pdf)
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- > A number of ESFRI projects participated in the most recent EGEE conference (EGEE<sub>i</sub>ˆ09). The agenda listing those projects is available here:
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- > <http://indico.cern.ch/sessionDisplay.py?sessionId=12&slotId=0&confId=55893#2009-09-21> [C5]
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- >
- > ESFRI Project Name
- >
- > LoS?



- > (Strictly one paragraph per VRC. Be concise and to the point. Avoid vague or ambiguous propositions)
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- > Exploitation plan:
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- > For ROSCOE, an important part of the exploitation plan will be the foreseen strategy for sustaining the VRCs. For this, it will be extremely important to identify the effort that will only be needed in the short term (e.g. setting up tools) and those that will have to continue indefinitely (e.g. maintenance of tools, providing user support). In addition each VRC Coordinator must provide a vision about how sustainability for the VRC will be achieved. This doesn't need to be definitive, but it does need to be credible. (In particular, continuous major funding by the EC is most likely not credible.)
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- > For the exploitation, provide a list of concrete results of the ROSCOE work plan and their impact and future use within your community. Each item should be very short (maximum of a couple of sentences.)
- > Socio-economic (we have something already):
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- > Briefly describe the social and economic impacts of the work done within ROSCOE. This should include the potential social or economic impacts of the scientific work supported by the VRC as well.[C9]
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- > Sections to be reduced / rewritten:
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- > NA2: Each VRC coordinator must review their description below and rewrite it keeping in mind the stated objectives above as well as the general description. The length of each contribution should be 0.50-0.75 pages. The description should start with a brief description of how the VRC will be coordinated.[C10]
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- > NA3: Please rewrite each of the VRC sections keeping in mind the goals of the activity and the general strategy. For dissemination, you should identify important groups within the community to reach, strategic projects, and important conferences. For training, provide examples of how the generic training would be specialized for your domain. Also provide important training events geared to your community to which you will contribute. The length of each VRC section should be 0.50-0.75 pages.[C11]
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- > SA1: Each VRC coordinator must rewrite their contribution keeping in mind the objectives of the activity as well as the overall strategy. [C12]
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- > SA2: Each VRC coordinator must rewrite their section keeping in mind the objectives of the work package and the general strategy. The description for each VRC should include a general description of how the scientific gateway will be used in the community and how it will be deployed. If a data repository will be created/maintained, this should be clearly described. The length of each section should be 0.50-0.75 pages.[C13]
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- > SA3: Rewrite the each section keeping in mind the objectives of the work package and the general strategy. You should highlight concrete packages that you'll focus on porting. This should be written as examples rather than definitive engagements to port specific things. The length of each section should be 0.50-0.75 pages.[C14]
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