EGI-InSPIRE

HUC CONTACT POINTS AND THE SUPPORT MODEL

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Abstract

This milestone delivers the contact points and the Support Model for the Heavy User Community (HUC).

Delivery Slip

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Document Log

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0.2	13-July-2010	Second draft	Vera Hansper/CSC, Ivan Degtyarenko/CSC
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0.6	15-July-2010	GrelC, GridWay, DRMAA, Kelpler	Marcin Plociennik, Giovanni Aloisio, Antonio Gómez
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1.0			
3.0			
4.0			

PROJECT SUMMARY

To support science and innovation, a lasting operational model for e-Science is needed − both for coordinating the infrastructure and for delivering integrated services that cross national borders.

The EGI-InSPIRE project will support the transition from a project-based system to a sustainable pan-European e-Infrastructure, by supporting 'grids' of high-performance computing (HPC) and high-throughput computing (HTC) resources. EGI-InSPIRE will also be ideally placed to integrate new Distributed Computing Infrastructures (DCIs) such as clouds, supercomputing networks and desktop grids, to benefit the user communities within the European Research Area.

EGI-InSPIRE will collect user requirements and provide support for the current and potential new user communities, for example the ESFRI projects. Support will also be given to the current heavy users of the infrastructure, such as high energy physics, computational chemistry and life sciences, as they move their critical services and tools from a centralised support model to one driven by their own individual communities.

The objectives of the project are:

1. The continued operation and expansion of today's production infrastructure by transitioning to a governance model and operational infrastructure that can be increasingly sustained outside of specific project funding.
2. The continued support of researchers within Europe and their international collaborators that are using the current production infrastructure.
3. The support for current heavy users of the infrastructure in earth science, astronomy and astrophysics, fusion, computational chemistry and materials science technology, life sciences and high energy physics as they move to sustainable support models for their own communities.
4. Interfaces that expand access to new user communities including new potential heavy users of the infrastructure from the ESFRI projects.
5. Mechanisms to integrate existing infrastructure providers in Europe and around the world into the production infrastructure, so as to provide transparent access to all authorised users.
6. Establish processes and procedures to allow the integration of new DCI technologies (e.g. clouds, volunteer desktop grids) and heterogeneous resources (e.g. HTC and HPC) into a seamless production infrastructure as they mature and demonstrate value to the EGI community.

The EGI community is a federation of independent national and community resource providers, whose resources support specific research communities and international collaborators both within Europe and worldwide. EGI.eu, coordinator of EGI-InSPIRE, brings together partner institutions established within the community to provide a set of essential human and technical services that enable secure integrated access to distributed resources on behalf of the community.

The production infrastructure supports Virtual Research Communities − structured international user communities − that are grouped into specific research domains. VRCs are formally represented within EGI at both a technical and strategic level.

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1. INTRODUCTION

1.1. PURPOSE

The purpose of this document is to provide contact points for the Heavy User Community (HUC) and to create a support model for this community.

The communities identified as Heavy Users Communities (HUCs) within this proposal are:

- High Energy Physics (HEP)
- Life Sciences (LS)
- Astronomy and Astrophysics (A&A)
- Computational Chemistry and Materials Sciences and Technologies (CCMST)
- Earth Sciences (ES)
- Fusion (F)

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1.4. SUPPORT MODEL – SHARED TOOLS

1.1.1. Dashboards:

The Dashboard system provides multiple applications. Depending on the information source, some of them are shared by several virtual organizations (VOs) whereas others are VO-specific.

Bugs and feature requests are tracked through Savannah.

There are 16 different categories, 1 for the Dashboard framework and 15 for various Dashboard applications. As for the status for the 13th of June 2010 there are 200 open bugs and feature requests and 1135 closed ones.
In addition to the Savannah system there is a dashboard support list where users can ask their questions or request help.
The dashboard team organizes regular tutorials for users of the dashboard applications and takes part in the VO tutorials for Grid users.
The link to the material of the user tutorial sessions can be found here.

1.1.2. GANGA:

New feature and development requests for Ganga are tracked via Savannah (items called "Feature Requests"). This is also used to do a basic prioritization of new features and following up the evolution of the tool. The priorities are discussed during the weekly Ganga meetings. This link points to the open feature requests in Savannah.
Presently there are ~60 open feature requests and ~260 closed ones logged in the system (for reference: there are currently ~70 open bug reports and ~960 closed ones). Some special views (display forms) have been developed by the Ganga project in order to track the "originator" of a request (user community) and map them against a given (or future) release.
In this view one can see bug reports (with corresponding fixes for closed reports) and feature requests alike. N.B. the "originator" of a feature request is only an approximate indication of the request's area of impact. For example, certain functionalities prototyped in ATLAS or LHCb may be re-factored into the Core. The same applies to bug fixes: for example, a bug found in ATLAS may become critical because of a potential big impact on LHCb.

1.1.3. DIANE:

1.1.4. HYDRA:

1.1.5. GrelC:

The GRelC service is a grid database management service aiming at providing access and management functionalities related to relational and non-relational databases in a grid environment. The GRelC project provides a website (www.grelc.unile.it) where users can find several information about the status of the project, new releases, installation guides, software development kit, rpms, etc. Since 2007, the project provides a mailing list (grelc-

user@sara.unile.it) where people can ask support in terms of new features, use cases, gridification of existing databases, tutorial material, etc.

Requests about new features will be prioritized taken into account:

(i)   the impact of the new feature on the specific application that is requiring it (low, medium, high);

(ii)   the impact of the new feature at the VO level (are there any other potential users in the same VO/domain-specific community? How many?);

(iii)   the impact of the new feature at the community level (are there any other VOs which could be potentially attracted by this new feature? Which one?).

(iv)   the impact of the new feature at the GRelC service level (how well does the new feature fit in the overall service picture and the planned roadmap?);

In the last years the GRelC Team has regularly organized several tutorials to disseminate information about the GRelC service and attract people and communities.

Last tutorials on the GRelC service has been held at the following three conferences in 2009:

- International Conference for Internet Technology and Secured Transactions , IEEE, (ICITST 2009) - November 9-12, 2009, London, UK

- Grid and Pervasive Computing 2009 Conference & Swiss Grid School (GPC09) – May 8, 2009, Geneve, Switzerland.

- Parallel and Distributed Computing and Networks, PDCN 2009 – February 17, 2009, Innsbruck, Austria.

Moreover we plan to organize new tutorials in the context of the EGI-Inspire project, as we did in 2008 in Istanbul at the EGEE08 Conference:

- "Tutorial on GRelC" - Introduction to gLite & RESPECT tools at EGEE'08 conference" - September 20-21, 2008 - Istanbul, Turkey.

User requirements will be gathered starting from specific use cases defined with the user communities. Some application-domain use cases needing database access and management functionalities in a grid environment will be defined with the user communities to help them in implementing new scenarios or extending the existing ones.

What it is expected is to define telco and/or F2F meetings with the user communities to start such a crucial process. In the Earth Science community, new use cases will extend the work that has been done in the EGEE project, in the context of the Climate-G VO/testbed. Some updates regarding the setup of this environment have been already sent to the people involved in this activity in July. In the Climate-G use case, several GRelC instances are right now running at several sites: SPACI (Italy), Fraunhofer-SCAI (Germany), CNRS-IPSL (France) and University of Cantabria (Spain). A metadata harvesting scenario has been already identified to integrate metadata information distributed among the four sites. A F2F meeting will be scheduled in September with Earth Science people, to better define and collect the requirements coming from this scenario to start the implementation phase in the near months.

1.1.6. SOMA2:

1.1.7. TAVERNA:

Support for parallel computing (MPI):

As part of the MPI related tasks of user support, the recommendation document from the EGEE MPI Working Group has been updated following the middleware developers suggestions. The new recommendation maintains the existing user requirements for executing parallel applications without creating clashes in the job description attributes that could lead to confusion or misinterpretation by the developers. This recommendation is now final and is available at http://grid.ie/mpi/wiki/WorkingGroup/

An MPI ticket in GGUS is pending on a new version of gLite-MPI-utils which is planned to be released in the following months.

Additionally, the MPI Support Activity has participated at a training event at the Grids & e-Science 2010 course (Valencia, Spain). Training material from the course is available for download.

1.1.8. Support Model – Services for High Energy Physics

The support model for High Energy Physics will be described in the document MS603 – Services for High Energy Physics.

1.1.9. GridWay

User suuport for GridWay has three main parts: the support for the GridWay platform, the support for the developments using GridWay and the support to the developments using the DRMAA API.

The support for the GridWay platform and developments includes:
1. GridWay Installation Guide. This guide contains general information about the installation of GridWay on a grid infrastructure.
2. GridWay Configuration Guide. This document details how to customize GridWay.
3. GridWay EGEE Configuration. It describes how to configure GridWay in a EGEE-based infrastructure.
4. GridWay User Mailing List. This list is used to get information about problems with the installation as well as problems with the GridWay commandline interface. There is also a mailing list archive to search for past issues.
5. The bugs are tracked through the GridWay tracking system.

1.1.10. About DRMAA:
6. DRMAA bindings for C and JAVA. They describe all the options of the API.
7. Some examples of DRMAA are provided for C and JAVA. These examples show the typical use cases of DRMAA.
8. DRMAA mailing list and archived messages from the list.

1.1.11. Kepler

User support for the Kepler could be seen as 2 separate part: the origin support for the Kepler main platform and engine, and support for the Grid extensions and workflows related.

The Kepler core platform support includes:

- the [Kepler User FAQ](#) , which contains information about the project, getting started, and common usage questions and problems;

- the [Kepler User Documentation](#), which includes a getting started guide, an actor reference, and a complete user manual;

- the [Kepler User Mailing List](#), which is used to share questions and disseminate information among Kepler users and Kepler team members. One can also [peruse archived messages](#) from the list;

- the Kepler [bug base](#). For a bug report in the core software, or an idea for a new feature or enhancement, there is Kepler's Bugzilla bug base.

In terms of the bugs and issues related to support to Grid/HPC access related actors and workflows:
7. Bugs and feature requests are tracked through [JIRA](#)
8. Additionally, there are training material from the different [courses](#) available.

2. SUPPORT MODEL

1.2. USING EXISTING TOOLS

A variety of tools are available to the HUC and support for these is generally through a combination of submitting a GGUS ticket and having the VO manager act on the ticket.

The advantage of using GGUS as a communication method for alerting the VO to a problem is that the problem can be allocated and tracked appropriately.

The end user communicates with the VO manager via the GGUS ticket, who then has the responsibility of forwarding the issue to the correct site or administrator. If necessary, the VO manager could also forward it to the appropriate tools support unit.

1.3. PREPARATION FOR SUPPORT MODEL

A number of details will need to be set up to prepare the HUC for the envisaged support model. These will include

- collecting the VO names and the task descriptors
- collecting the VO manager contacts and their duties
- ensuring that the VO managers have the correct rights in the GGUS system, and that the correct support units (SU) exist in GGUS.

End users may need to apply for an account to access GGUS.

1.4. TRAINING FOR SUPPORT MODEL

As many end users are already familiar with GGUS as a system, it is anticipated that training in the use of GGUS would be minimal. There will be a need to train new users, and training can often be done by an experienced user, via online help and tutorials. There should be a possibility to train at EGI technical forums.

Training of the VO managers for their duties and responsibilities is the responsibility of the task manager for that VO. (???)

APPLICATION AREA

This document is a formal deliverable for the European Commission, applicable to all members of the EGI-InSPIRE project, beneficiaries and Joint Research Unit members, as well as its collaborating projects.

1.5. REFERENCES

Table 1: Table of references

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1.6. DOCUMENT AMENDMENT PROCEDURE

Amendments, comments and suggestions should be sent to the authors. The procedures documented in the EGI-InSPIRE "Document Management Procedure" will be followed:
https://wiki.egi.eu/wiki/Procedures

1.7. TERMINOLOGY

A complete project glossary is provided in the EGI-InSPIRE glossary:
 http://www.egi.eu/results/glossary/.

EXECUTIVE SUMMARY

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1.8. XXXXX

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CONCLUSIONS

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