

## GridConnections

**June 2008**

*News and Information for the Open Grid Forum Community*

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Dear Readers:

[OGF23](#) is one of the largest and most important grid and distributed computing events taking place this year. The program features an extensive set of activities for all those interested in learning about Grid and distributed computing technologies. During the week, participants can choose from numerous sessions, workshops, seminars, keynote presentations and tutorials being offered by OGF and our event partners OGF-Europe and BEinGrid.

That is why we ask all the session leaders to brief you on their plans for the event and have dedicated this edition of the GridConnections newsletter almost entirely to OGF23. Even if you are not planning to go to Barcelona, you will want to refer back to the program schedule after the event to view the session presentations. If you will be at OGF23, do not miss the Town Hall meeting on Monday where there will be a very important final read-out from the Board sub-committee exploring OGF's future direction and mission.

### **OGF23 Show Special**

#### ***Dynamic Service Level Agreements Workshop***

*Monday, 2 June at 11:00 in Barcelona B*

*This workshop will bring together researchers and engineers working on Service Level Agreements (SLA) issues in order to facilitate better understanding of requirements for Quality of Service provision of Grid systems. An important focus of this workshop is on how SLA management systems and Grid standards currently being developed can specify, negotiate, monitor and adapt SLAs to provide a level of Quality of Service needed for scientific and industrial purposes. If you are interested in participating, please, email [Karim Djemame](#) or [Wolfgang Ziegler](#).*

#### ***Interoperability and Interoperation between Europe, India and Asia***

*Monday, 2 June at 11:00 in Eixample*

*This workshop will explore the main milestones achieved by the EU-IndiaGrid project in enabling the integration between the European EGEE and Indian GARUDA Infrastructures and will offer the audience a platform to discuss about still open challenging issues, continuing the discussions which have been raised during the first project conference held in December in Bangalore, India. The second part of the programme will see the audience crossing the Indian*

geographical borders to focus on other EU-Asian Grid initiatives thanks to the active participation of representatives from TEIN3, EU-ChinaGrid, EchoGRID and EU-AsiaGrid projects. Data management issues will be also covered, with contributions on SRM-SRB interoperability from EU-IndiaGrid project and Academia Sinica Taiwan.

### **DAIS Working Group Session**

Monday, 2 June at 11:00 in Sarria

This session will update the community with what has happened within the Database Access and Integration Services Working Group in terms of implementations of the DAIS-WG specifications and progress with the RDF realisations of WS-DAI.

### **OGSA DMI Session**

Monday, 2 June at 14:00 in Montjuic

The OGSA-DMI has just gone through its final public comment phase - this session will give a very brief overview of the specification, describe how public comments were resolved and go on to discuss renderings and implementations of the OGSA-DMI specification. A fun session for all to attend.

### **Exploring Cloud Computing**

Monday, 2 June at 15:45 in Barcelona B

A mix of invited talks, panel and free ranging discussion. Let us debate:

- 1) What is and equally interestingly what isn't a cloud?
- 2) What is implication of Clouds for Enterprise Data Centers?
- 3) If TeraGrid evolves to PetaCloud, how would it look?
- 4) What are research issues for Clouds?
- 5) Can one (or who could) "trust" clouds. Can clouds be used across borders of countries with different government policies?
- 6) Will Cloud interoperability be important; if so at what interface(s) will it be provided?
- 7) What is the killer app for clouds?
- 8) What is pricing model for clouds. Are data, computing, persistent and pulse services, communication all cost effective?
- 9) Are software environments like Hadoop or Google Application Engine (GAE with a python base) general?
- 10) Which is more promising in near future. Infrastructure as a Service IaaS (as in Amazon) or Platform as a Service PaaS (as in GAE) or both
- 11) How does MPI work?
- 12) and last but hopefully not least where do Grids fit in?

Opportunity still exists for other speakers

### **Quality for Grid & Grid for Quality Workshop: Sharing Experiences and Perspectives of Grid and Open Source Communities**

Monday, 2 June at 15:45 in Barcelona A

This workshop aims at creating the floor for specific discussions about the Quality Assurance initiatives from two different perspectives: Grid and Open Source. The Agenda involves international Grid and Open Source experts. A relevant focus will be given at surveying how Grid can help people in assuring the quality of their software and how the classical QA best practices could be useful in the Grid environment, usually open source based. Interested in contributing and in participating, please, contact [manieri@eng.it](mailto:manieri@eng.it) or [matteo.melideo@eng.it](mailto:matteo.melideo@eng.it) for confirmation of attendance and request for further info.

### **Data Grids Birds of a Feather**

Monday, 2 June at 15:45 in Montjuic

Data Grid concepts, such as “shared collections” and “shared resources” are useful in creating “collaborative data management infrastructures” for global enterprises and large-scale science. They allow data and storage resources to be collaboratively shared across multiple organizations. The proposed group will discuss on standards and best practices for data grid solutions. Anyone interested in either presenting or participating in this session should contact [arun@sdsc.edu](mailto:arun@sdsc.edu).

### **Integrating Service and Desktop Grid Birds of a Feather**

Monday, 2 June at 15:45 in Sarria

There are scientific communities whose applications require much more computing resources than existing service grids (SG) like EGEE can provide. The main objectives of our session are to support these new communities with the necessary extensions of the existing Grid infrastructures, with the adaptation of their applications to this enhanced Grid infrastructure and with the provision of standard APIs and Grid application development tools.

To support the specific needs of these scientific communities we will interconnect EGEE Grid with existing Desktop Grid (DG) systems. Both of them having advantages. SGs are flexible but expensive. DGs are more restricted but able to collect 1-2 orders of magnitude more CPUs than SGs. This interconnection will provide advanced capabilities to more researchers, capturing commonalities, fostering interoperability, promoting open standards and federating approaches across disciplines. A last objective is to extend the potential user communities to involve ordinary citizens, students and employees to apply Grid technology in their every day life. The project objectives are complementary with the objectives of EGEE and a strong partnership between EDGeS and EGEE is foreseen.

### **Grid Economics and Business Models**

Tuesday, 3 June at 15:45 in Barcelona B

As on-demand pay-per-use access to resources and Grids are brought together, technologies such as Utility and Cloud Computing are offering opportunities for new ways of accessing resources and new business models. Alongside these new business models are the economic and technical issues of resource pricing, access, security and payment. This session aims to explore some of these issues. The session will consist of presentations, including results from research being carried out in these areas, followed by discussion.

### **RESERVOIR Project**

Tuesday, 3 June at 15:45 in Montjuic

The goal of the RESERVOIR project is to advance the competitiveness of the EU economy by introducing a powerful ICT infrastructure for reliable and effective delivery of services as utilities, in a manner analogous to electricity and telephony. This infrastructure will support the setup and deployment of services on demand, at competitive costs, across disparate administrative domains, ensuring quality of service. RESERVOIR will lay a foundation for a service-based European online economy, where services will be transparently, scalable and flexibly provisioned and managed for the benefit of businesses and citizens.

The prime deliverable will be an architecture and a reference implementation of a service-oriented infrastructure (SOI), which – building on open standards and new technologies – will provide a dependable framework for delivering services as utilities. We will demonstrate how this infrastructure supports the deployment and management of complex service scenarios. We aim to achieve significant quantifiable improvements in service delivery productivity, quality, availability and cost.

### **Remote Instrumentation Services in Grid Environment - Demo (LEGO Mindstorm) and Presentations**

Tuesday, 3 June at 15:45 in Sant Gervasi

The RISGE-RG main purpose is to integrate approaches in defining remote access interfaces to sophisticated laboratory equipment in e-Infrastructure environments. This concerns steering, monitoring and user access to unique instruments. The RISGE explore issues related to the usage of advanced Grid capabilities such as interactivity, visualisation in the process of monitoring as well as execution of measurement tasks and experiments on complex remote scientific equipment. During this session we will present the main goals of RISGE-RG, as well as best practices. We plan to show demo on usage of remote instrumentation - LEGO Mindstorm DEMO. The demo will show a set of small robots equipped with on board sensors and a camera. The robots are integrated in the eInfrastructure through a middleware extensions called Instrument Element. The user can interact with the robots, control and monitor missions via a Virtual Control Room.

### **BEInGRID Industry Days**

Tuesday-Thursday, 3-5 June in Barcelona A and Sants

The BEInGRID Industry Days ([www.beingrid.eu](http://www.beingrid.eu)) are designed to demonstrate to the commercial sector that Grid technology is business-ready. In addition to showcasing the results of BEInGRID's pilot implementations – where Grid has been used in innovative, practical and profitable ways by real companies - featuring live demonstrations, we will also have key speakers from industry such as Charles Brett, principal analyst, Forrester; Carl Kesselman, founder, Univa UD and Paul Strong, eBay; as well as speakers from Atos Origin, Platform, GridSystems, IBM, AXA, BT, the EC and more. Our target audience includes decision makers and end users from the commercial sector.

### **CAOPS - IGTF Workshop**

Wednesday, 4 June at 09:00 in Sarria

The purpose of this workshop will be to discuss issues best practices in Grid CA Operations and the International Grid Trust Federation (IGTF). Issues that are going to be presented and discussed include experiences and guidelines on incident handling and response, guidelines for auditing Grid Identity Providers, levels of assurance and alternate technologies for federating Grid identities.

### **Using Grid Techniques to Optimise Energy Efficiency**

Wednesday, 4 June at 09:00 in Barcelona C

With rising energy prices and growing concern about global warming, the question of energy efficiency has become a major concern for the ICT industry. This workshop will explore how grid mechanisms and techniques can capture and implement policies to enable more efficient use of IT resources. We have speakers from industry, academia and OGF; there will also be plenty of discussion. Potential approaches might include the development of scheduling algorithms for energy-aware management of task allocation, improvement of techniques for modelling energy efficiency, standardised formats for monitoring of and accounting for energy consumption, and the specification of appropriate policy frameworks.

### **Grid: Tools, Middleware and Applications Workshop**

Wednesday, 4 June at 14:00 in Barcelona C

The need to integrate databases (DB) and DB technology in a grid environment has been already recognized as a fundamental requirement for many applications coming from several scientific domains. In that sense, some tools and services have been developed to deal with such needs. This workshop is aimed at reviewing the state of the art of the related research activities. Developers are invited to present tools and services designed to virtualize databases

*and their access through a grid environment, while users communities will report about the usage of those services and further requirements. This workshop represent a good opportunity for developers and users from different fields to exchange their experiences and solutions*

### **GIN Security Profile Session**

*Wednesday, 4 June at 14:00 in Montjuic*

*During the interoperation and interoperability work in GIN, Grid security (authorization, authentication) is always a major showstopper. While numerous OGF specifications have been defined (and even more actually exist outside of OGF), we found that production Grids adopt these new set of standards or profiles rather slow, which typically is due to the slow adoption in the middleware systems deployed on these infrastructures. This in turn limits the scope of many interoperable components within cross-Grid scenarios. Therefore, based on feedback from the GIN discussions at OGF21, several workshops, and on the lessons learned from numerous interoperation / interoperability demonstrations this session will discuss how a security profile within production Grids would look like. Topics discussed will include the limitations of proxies, technologies for authorization and authentication, and standards (i.e. profile) that lead to a mid-term convergence between rather new SAML-based technologies (e.g. used within OMII-Europe or Shibboleth Federations) and long-term established technologies deployed on production Grids (e.g. Attribute-Certificate-based VOMS).*

### **OGSA BES/HPC-P/JSDL/GLUE Working Groups**

*Wednesday, 4 June at 15:45 in Montjuic*

*BES, HPC extensions to BES, JSDL and GLUE are complementary specifications that together enable a richer description, selection and execution of activities for computing resources. If you are involved in their implementations, join this session to start the discussion on how to profile the usage of these specifications in order to enable an interoperable job submission activity across different Grid middleware implementations.*

### **GLUE Working Group**

*Wednesday, 4 June at 17:30 and Thursday, 5 June at 09:00 & 11:00 in Montjuic*

*The GLUE Working Group submitted for public comment two specifications related to the GLUE 2.0 conceptual model for Grid resources and its realizations in terms of the XML Schema, LDAP schema and SQL. Join our sessions to learn about the content of the two new documents and about the ongoing implementations. Your use cases and feedback will be a valuable contribution to the evolution towards the final specifications.*

### **JSDL Working Group Session**

*Thursday, 5 June at 14:00 in Les Corts*

*The JSDL-WG has produced a language that describes the requirements of jobs (or activities) for submission to Grids. Work continues on improving and extending the language to a wider class of activities, including Web service invocations, parallel Job execution, and more complicated submission patterns such as parameter sweep submissions. At OGF23 the group will discuss ongoing work on defining parameter sweep jobs, and on representing all information about an activity---not just its submission requirements---over the activity's entire lifetime.*

### **Mapping HASS - e-Research for Humanities, Arts and Social Science Community Session**

*Thursday, 5 June at 14:00 in Sant Gervasi*

*The purpose of the meeting is to map e-Science approaches in Humanities, Arts and Social Sciences (HASS). We would like to continue our discussions from OGF 20 in Manchester and OGF 21 in Seattle about a community group agenda for HASS researchers and present existing*

work in the area to the wider community. The first part of the session will present case studies of successful applications in Social Sciences and Humanities, before in the second part we will discuss a new community agenda.

### **Remote Instrumentation Services in Grid Environment - Use Cases**

Thursday, 5 June at 15:45 in Sant Gervasi

The RISGE-RG main purpose is to integrate approaches in defining remote access interfaces to sophisticated laboratory equipment in e-Infrastructure environments. This concerns steering, monitoring and user access to unique instruments. The RISGE explore issues related to the usage of advanced Grid capabilities such as interactivity, visualisation in the process of monitoring as well as execution of measurement tasks and experiments on complex remote scientific equipment. This session is a continuation of the discussion and work started during previous RISGE-RG group session at OGF21, OGF22 and INGRID'08 conference. During this session the group will present and discuss the first collected use cases: controlling the Pierre Auger Observatory, NMR spectrometry, Ocean Observatories, Remote operation of an accelerator. If you are interested in remote instrumentation, interactivity, steering and visualisation in grids - don't miss that session.

### **Future Perspective Workshop - Perspectives and Point of Collaborations among Grid Roadmaps and Strategic Research Agendas**

Thursday, 5 June at 15:45 in Barcelona A

Recently several initiatives (3S, Coregrid, Echogrid, Challengers, NESSIGrid) promoted the definition of research roadmaps or agendas for the development of software in the context of the European Research Area. The Workshop is divided in two parts, Roadmaps Concertation, that aims at providing a place for the developers of future plans to present their visions, and Community Collaboration Process, that identifying collaborations, common strategies and future joint initiatives. Interested in contributing and in participating, please, contact [manieri@eng.it](mailto:manieri@eng.it) for confirmation of attendance and request for further info.

### **Welcome our Newest Organizational Member - UNICORE**

Please join OGF in welcoming [UNICORE](#) (Uniform Interface to Computing Resources) to its roster of organizational members. UNICORE offers a ready-to-run Grid system including client and server software. UNICORE makes distributed computing and data resources available in a seamless and secure way in intranets and the internet.

### **Now Accepting At-Large Board of Director Nominations**

OGF is now accepting nominations for At-Large members of the OGF Board of Directors. At-Large members of the Board represent the community in the financial and long-range strategy of the organization. These At-Large members are essential to providing community representation on the Board. Nominees must be members of OGF (either employed by an organizational member or an individual member). If you are unsure whether your nominee is a member, please submit their name for consideration. The Board will vote on these positions (3) during the July Board meeting, so nominations must be received by 20 June. Nominations are taken [online](#).

### **Documents Update**

#### **Documents in Public Comment**

Prior to formally publishing a document, OGF solicits "public comments" from the greater grid community, which is an important step in the OGF document process. The following documents are currently available for public comment. Please take a moment to provide your feedback.

- [SAGA API Extension: Service Discovery API](#)

## Upcoming Events

- **OGF24 Co-located with GridAsia08 Singapore September 15-19, 2008**
- **OGF25 To be co located with the EGEE User's Forum in late February or Early March 2009 in Europe**
- **OGF26 June 8-12, 2009, The Friday Center, Chapel Hill, North Carolina**
- **OGF27, Co-located with WestGrid's Annual Conference and hosted by Cybera, October 12 - 16, 2009, Banff, Alberta Canada**

## Other Events

- **eScience 2008 Conference, Indiana University/Purdue University Campus (IUPUI), Indianapolis, IN, December 7-12, 2008**  
Organizing committees of the 4<sup>th</sup> International IEEE Computer Society Technical Committee on Scalable Computing eScience 2008 Conference are now [accepting papers](#) and proposals for tutorials; posters, exhibits and demos; workshops and special sessions. The conference is being held in partnership with the Microsoft Research eScience Workshop and is hosted by Indiana University.