

GridConnections

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News and Information for the OGF Community

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OGF26 Wrapup

OGF 26 in Chapel Hill, NC USA was a small, group-focused event intended to concentrate on focused workshops, group sessions and BOFs. The participants were very active and accomplished a great deal over the course of the three-day event. Both the recently-approved new groups featured in this newsletter, DR-RG and OCCI-WG, had their first group sessions at OGF26.

The full wrapup information may be found at <http://www.ogf.org/OGF26/wrapup.php>.

Newly Published Documents

OGF recently published three new documents:

- GFD.151 "HPCBP Advanced Filter Extension"
Abstract: This document defines the Advanced Filter extension – an alternative to the Basic Filter element described in the HPC Basic Profile 1.0 specification. The Basic Filter provides only an 'on' or 'off' approach to returning information about the activities or resources operating within the Basic Execution Service container. The Advanced Filter extension provides more flexibility to the client in returning information from an HPC Basic Profile complaint endpoint.
- GFD.152 "Open Grid Forum Document Process and Requirements [Obsoletes GFD.1]"
Abstract: This document defines the types of OGF documents and the development and review processes for each type. This document obsoletes GFD.1 and replaces it as the description of OGF community practice surrounding the document series. The process reflects several years of experience with OGF document publication, and borrows heavily from the Internet Engineering Task Force Request for Comments document process.

GFD.153 "Policy for Supporting Grid and e-Science Education and Training"

Abstract: This document is a call to action, identifying issues and proposing a strategy in order to support and make progress in grid and e-Science education and training. Inevitably, it is neither complete nor definitive. The intention is that it will seed much greater efforts to further develop the understanding of requirements, to better characterise challenges and to propose specific strategies, curricula and collaborative efforts for international adoption. The ET-CG is already fostering other more specific work and documents that form elements of that development.

All OGF published documents may be found at <http://www.ogf.org/gf/docs>.

Green IT

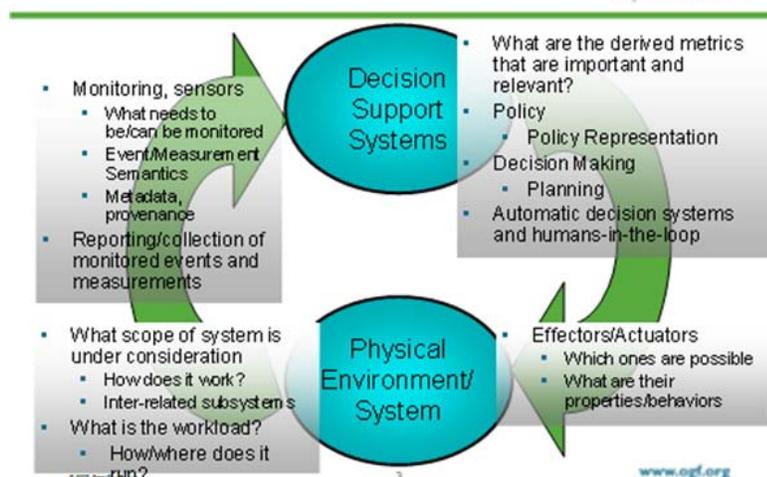
- Ian Osborne, Vice President of Enterprise

OGF-Europe held a major workshop at OGF 25, focused on the area of Green IT and its potential for inclusion in the OGF portfolio of standards. The backdrop to this was the innovative approach being taken in the region towards introducing a Code of Conduct on Data Centres. This combination of a voluntary code for registering energy consumption and a peer-reviewed best practice guide seems set to influence IT investments in both the public and private sectors. The workshop brought together some of the community's best minds and some excellent examples and approaches towards improving the energy efficiency of infrastructures through specific product and process innovations. Laurent Lefevre, INRIA, talked about the live monitoring of power consumption in their trial grid infrastructure, they implemented a reservation system scheme to influence usage patterns and discovered that this did indeed smooth usage. Marisa Vargas of Telefonica talked about the telecom giant's plans to achieve major governmental energy reduction targets. Areas of interest in the space for Telefonica include smart metering and smart power grids, potentially helping to close the loop between demand and supply. OGF stalwart, Bernhard Schott, Platform Computing, gave some real user examples of optimising operational constraints in the data centre to reduce heat generation, which therefore reduces cooling considerations! He also expounded ICTs potential as a solution to the carbon emissions challenges we face – beyond the efficiency of our own infrastructures.

Ignacio Llorente, University of Madrid, described OpenNebula a virtual management tool which enables the development of a private cloud with the ability to manage utilisation within available resource constraints and to manage the lifecycle of virtual machines (VMs) in an effective manner.

Liam Newcombe, Romonet/British Computer Society Data Centre Specialist Group and principal architect of the EC Code of Conduct for Data Centres, described his approach to engineering the data centre to meet energy constraints, beyond the simplistic metrics currently popular in the Green Grid community. Liam has taken an engineering approach to this and Romonet will be offering tools and services to assist leading edge adopters. He asked that we consider which levers we need to make available to optimise energy consumption:- Task Assignment; Run times and loads; Location; Temperature limits and Power cost. Following Liam, Sven van den Berghe, Fujitsu Laboratories, Europe, offered some thoughts about an API for per-service reporting of CO2 consumption, against which policies could be implemented. Craig Lee, President OGF, offered some reflections on the nature of control models, see below, as a precursor to a discussion of possible standards activities. We then enjoyed a panel discussion including inputs from the speakers, plus Paul Strong, e-Bay, who was able to update us on the state of the art in the Cloud service providers activities. He emphasised that such investments do not take place unless there are clear cost/benefits on offer, whether on financial or sustainability balance sheets. There are simple measures which can pay off, the EC Code of Conduct Best Practice guide features some of these, and it is important that we build upon experience with some flexibility of approach. In the final session, David Wallom led a discussion focused on the immediate areas of benefit that could accrue from standards activities.

A Notional Reference Model



OPEN CLOUD COMPUTING INTERFACE (OCCI) WORKING GROUP

(This is an excerpt from the press release which may be found at <http://www.ogf.org/News/news.php?id=132>.)

The Open Grid Forum (OGF) has officially launched the Open Cloud Computing Interface Working Group (OCCI-WG). Its aim is the rapid development of a clean, open API for cloud infrastructure delivered on-demand. Infrastructure as a Service (IaaS) is one of three primary segments of the emerging cloud industry in which compute, storage and network resources are provided as a service. The API will be based on existing service provider functionality, and will cover management of the entire life-cycle of virtual machines and other similar workloads (including virtual private servers and physical dedicated servers). It will as much as possible complement and build on existing work such as the Open Virtualisation Format (OVF), as well as serving as an integration point for others standards efforts including DMTF and SNIA.

OCCI will rely heavily on existing Internet standards and work already done by cloud providers, so as it is easy to both implement and consume. This will benefit software vendors and service consumers alike. For example software vendors who wish to deliver their applications as a service will find it easier to take advantage of multiple cloud infrastructure providers for hosting and management. This lowers the barriers to creating innovative cloud applications for end user desktops, web browsers and mobile Internet devices, as well as automated systems for the on demand scaling of resources that are billed on a utility computing basis.

"Standards are an important step on the path to mainstream adoption of cloud computing," said Chris Smith, OGF's VP of Standards. "Open specifications give consumers the confidence they need to leverage cloud computing infrastructures, without having to worry about being locked in to a particular vendor."

In addition to regular conference calls and email discussions, the group will be represented at the OGF 27 event in Banff, Alberta, Canada (October 12-16, 2009). The group is open for discussion at <http://www.oggi-wg.org> and is also soliciting contributions, feedback and ideas from the cloud and grid community.

OGF Digital Repositories Research Group – Addressing the needs of the Digital Repositories Community

- Nick Ferguson, Trust-IT Services

"With the rise of Cloud Computing and building federated repositories, the Digital Repositories (DR) community is starting to move into a Grid-like model and experiencing many difficulties found in a Grid like setting" Erwin Laure, KTH & OGF Data Area Co-chair at the OGF DR workshop, OGF25.

The newly established OGF Digital Repositories Research Group (OGF DR-RG) aims to address these issues by examining how digital repositories (DRs) can be built on top of federated storage infrastructure, focusing on the exploitation of existing data-related standards and the identification of new or revised data-related standards.

The group will be holding a Digital Repositories (DR) Birds of a Feather (BoF) Workshop at OGF26 which will specifically address one of the main aims of the group - that of collecting (metadata) use-cases to survey metadata handling in various DRs communities. *"The event will feature various experts from the repository and the grid communities with particular focus on US case studies"*, says Andreas Aschenbrenner, University of Goettingen and OGF DR-RG Co-chair. Outcomes of the workshop will be the basis for potential future standardisation efforts in metadata handling.

In order to drive the adoption of standards for the DR community, the group has issued a call for position papers outlining use-cases that highlight

- Principal challenges in your work surrounding metadata themes
- Use cases of metadata handling and associated requirements in your community
- Areas where further interoperability is necessary

As well as collecting metadata use-cases to survey metadata handling in various DR communities, the groups will also carry out an architecture study highlighting the architecture of several digital repositories in order to identify the potential for exploitation of existing standards as well as the need for new or revised standards.

The group has been formed as a direct result of OGF-Europe's Digital Repository Community Outreach Seminar held at OGF23, June 2008. The workshop created a great deal of interest in the DR community. Since then OGF-Europe has worked closely with people from OGF, OMII-UK, DReSNet and the University of Goettingen to deliver follow-up workshops at the 4th International Digital Curation Conference, December 2008 and OGF25, March 2009.

Reports, presentations and videos of these activities are available at www.ogfeurope.eu

Details of the group and the charter can be found at
http://www.ogf.org/gf/group_info/view.php?group=dr-rg

Upcoming Events

- **The 27th Open Grid Forum - OGF27**
Co-located with WestGrid's Annual Conference and hosted by Cybera
The Banff Centre
Banff, Alberta, Canada
October 12-16, 2009

The week-long summit will bring together an international gathering of developers, suppliers, users and others who push the capabilities of the above-mentioned technologies. Presented as three conferences in one, this event will be one of the largest in North America to explore the tools that are changing the ways we investigate, integrate and innovate our business and research practices.

CALL FOR PARTICIPATION:

The call for participation is open for OGF27. For this event, there are 2 open calls:

- 1) Call for Submissions for Themed Sessions
- 2) Peer-reviewed / IEEE Workshops\

Visit <http://www.ogf.org/OGF27/cfp.php> for more information and how to submit proposals.

REGISTRATION OPEN:

Registration is now open for this event. Please visit <http://www.ogf.org/OGF27/registration.php> for pricing information and the link to the registration site.

Be sure to register early to take advantage of the lowest fees available.

- **The 28th Open Grid Forum - OGF28**
March 8-12, 2010
Ludwig Maximilian University
Munich, Germany