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GridConnections

News and Information for the Open Grid Forum Community

In this issue:

- **OGF27 at SUMMIT09**
 - **“Showcase for Cloud Services”**
 - **Registration & Lodging**
 - **Keynote Speakers**
 - **Highlighted Sessions**
 - **Current Schedule**
 - **National Park Entrance Fee**
- **Upcoming Events**

OGF27 at SUMMIT09

Our excitement is growing as we approach OGF27 at Summit09. Keynote speakers have been announced and our session schedule is near completion. Recently, “Showcase for Cloud Services” has been added to the schedule. There is an open call for presentations for this show and tell in evolution towards Cloud like services from the substantial base that is the grid today.

Below you find more information regarding “Showcase for Cloud Services” and additional information regarding registration, the current schedule, and more.

- **“Showcase for Cloud Services”**

At Summit 09 the organizers are delighted to announce a new Showcase challenge for OGF 27/IEEE Grid/CloudCamp delegates and exhibitors. The challenge is to mount a live demonstration showing the deployment and orchestration of cloud based services using underlying grid computing infrastructures. Examples might include the provision of an infrastructure service, offering access to compute or storage resources, on demand. Examples include Amazon’s EC2 and S3; or their configuration into a platform service, showing the provision of a command line or graphical interface demonstrating the supply of capacity and management tools on demand. Examples include Google Docs; or in the deployment of application services, possibly multi-tenanted, demonstrating individual access to application functionality – again on demand, such as Software as a Service, e.g. Salesforce.com or Google Apps. This might include the type of interactive solution demonstrated by Animoto (taking a range of input resources and returning a finished product); or access to application functionality to support the researcher in their needs. Applications may also encompass the provision of information as a service.

The intent of this Challenge is to demonstrate the viability for on-demand grid based end user services at several levels, demonstrating capability for load balancing and distribution using conventional grid computing tools and potentially including new cloud concepts such as inter-organization collaboration through virtual organization and/security using the identity/resource permissions models implemented in Shibboleth.

The Showcase will take place during the Tuesday evening opening reception and will be held concurrently with the CloudCamp event. While there are no prizes on offer, the cachet of coolest exhibit will be recognition in itself. Facilities will confirmed, but please assume shared wireless access to the internet and plan to use your laptop and perhaps a short explanatory presentation describing the features developed and underlying infrastructure in use. You will have the chance to introduce your demo in the Cloudcamp session in a session called: One minute madness... It will be a great opportunity to draw interest to your idea in a maximum of 60 seconds.

Entrants please register your proposed demonstration by October 1st indicating the title and class of offering (Infrastructure, Platform or Application) at summit09@cybera.ca. We plan to feature the best examples in our own coverage of the event and through sister publications, such as International Science Grid This Week, etc.

- **Registration & Lodging**

Although the advanced registration fees have already expired, you may currently register with the "Regular Rate". Take advantage of this rate before October 11th to avoid the higher on-site registration fee.

The link for event registration may be found at <http://www.ogf.org/OGF27/registration.php>.

Don't forget to book your hotel reservations! A list of local hotels, including the hotel at the conference venue, can be found at <http://www.ogf.org/OGF27/lodging.php>.

- **Keynote Speakers**

We are pleased to announce the following keynote speakers for Summit09:

Jacques Mc Neill Green ICT Initiative Coordinator, Prompt Inc.

Jacques Mc Neill is Coordinator of Prompt's Green ICT Initiative. He is President of Technoprise Inc., an ICT consulting firm that actively participates in the early stage activities of new innovation development activities. His career has spanned the industry, academic and government realms of the ICT sector.

As a new venture entrepreneur and project developer, he participates in leading edge partnership opportunities in Canada and abroad, occasionally assuming in a start-up an executive position during its "valley-of-the-death" phase. He provides hands-on management experience and addresses ICT market opportunities through strategic partnerships. Mc Neill has been a member of Prompt's Board of Director member since the organization's inception and was Board Chair for three 3 years.

Since 2008, he has coordinated the launch of Prompt's Green ICT initiative. He is a McGill graduate in biochemistry and his MBA in Marketing and International Business lead to a career as high-tech entrepreneur in the ICT industry.

Andrea Donnellan Geophysicist, Jet Propulsion Laboratory, NASA

Andrea Donnellan has been a geophysicist at JPL since 1993 and is also a research professor at the University of Southern California. She has held JPL positions as the deputy section manager of the Exploration Systems Autonomy Section, supervisor of the Data Understanding Systems Group and as a research scientist in the Satellite Geodesy and Geodynamics Group. In that group, she helped establish the Southern California Integrated Global Positioning System Network, a state-of-the-art continuous Global Positioning System network used to assess and mitigate earthquake hazards.

Donnellan's current focus is developing the Solid Earth Research Virtual Observatory, which will use computational technologies to study earthquake physics and fault systems. She also uses Global Positioning System and interferometric synthetic aperture radar (InSAR) satellite technology coupled

with computer models to study earthquakes, plate tectonics and corresponding movements of Earth's crust.

Donnellan has published more than 25 articles in leading journals and has twice been a finalist in the astronaut selection process. Her previous honors include the Presidential Early Career Award for Scientists and Engineers and JPL's Lew Allen Award for Excellence in Research, in recognition of significant leadership and technological innovation performed during the early years of a researcher's professional career.

Dr. Rich Wolski Chief Technology Officer and Co-Founder, Eucalyptus Systems Inc.

Dr. Rich Wolski is the Chief Technology Officer and co-founder of Eucalyptus Systems Inc., as well as a Professor of Computer Science at the University of California, Santa Barbara (UCSB). Having received his MS and PhD degrees from the University of California at Davis (while a researcher at Lawrence Livermore National Laboratory) he has also held positions at the University of California, San Diego, and the University of Tennessee.

He is currently also a strategic advisor to the San Diego Supercomputer Center and an adjunct faculty member at the Lawrence Berkeley National Laboratory. Wolski has led several national scale research efforts in the area of high-performance distributed computing and grid computing, is the author of numerous research articles concerning the empirical study of distributed systems, and is the progenitor of the Eucalyptus project.

Bill Appelbe Chief Executive Officer and Chief Scientist, Victorian Partnership for Advanced Computing (VPAC)

Bill Appelbe is the founding Chief Executive Officer and Chief Scientist of Victorian Partnership For Advanced Computing (VPAC) since 2000. VPAC is a state-based research service provider, serving industry, academia, and government, that is a "profitable" not-for-profit company employing about 60 staff over four locations in the state; with strong national and international projects, collaboration, and funding. Appelbe completed an undergraduate honours science degree at Monash University in 1974 then completed a Masters then Doctorate in Computer Science and Electrical Engineering in 1978 at the University of British Columbia.

Subsequently, he was employed at the University of California, San Diego, then as an Associate Professor at Georgia Tech (1987-1998). Appelbe has had strong ties to industry for many years, being employed or funded by companies and organizations including IBM, HP, Sun Microsystems, Los Alamos, and Motorola. His research interests are in parallel programming tools, software engineering and software frameworks. Appelbe is an honorary faculty member of Monash University and RMIT and a member of the Executive Committee of the NSF Center for Geodynamics at Caltech.

Anthony Williams Coauthor, Wikinomics: How Mass Collaboration Changes Everything

Researcher and consultant Anthony Williams is the coauthor with Don Tapscott of Wikinomics: How Mass Collaboration Changes Everything, the breakthrough introduction to the new economics transforming business and competition with the emergence of Web 2.0. Based on the largest investigation of strategic IT in business ever conducted, Wikinomics shows how Web 2.0's interactive technology platforms make new ways of value creation possible — even imperative.

For more than a decade Williams has researched the impacts of new technologies on social, political and economic life. He has authored numerous influential reports on strategy, innovation and intellectual property, including a global effort to understand how transparency is revolutionizing business and redefining the corporation's role in society.

Williams was a core member of an esteemed research team that charted a new course for governance and government for twenty top government agencies around the world. He is the author of a major study entitled Government 2.0: Wikinomics, Government & Democracy, and several other articles on the topic. Williams' work has been featured in such publications as BusinessWeek, the Globe and Mail and the Times of India, and has been widely circulated in proprietary syndicated research programs.

Jerry Sheehan Chief of Staff, California Institute for Telecommunications and Information Technology

Jerry Sheehan is currently the Chief of Staff for the California Institute for Telecommunications and Information Technology. In this capacity, Mr. Sheehan has been deeply involved with the Institute's efforts to understand information communication technologies in an era of carbon constraints.

Sheehan was the lead organizer for the Greening of the Internet Economy workshop held in January 2009 that brought together 200 leaders from the public sector, universities, and industry to discuss challenges and opportunities for Green ICT. Sheehan is also Senior Personnel on the National Science Foundation GreenLight MRI aimed at developing a community instrument for measuring the carbon footprint of modern research cyberinfrastructure.

Edward Seidel Director, Office of Cyberinfrastructure, National Science Foundation

Edward Seidel is a physicist recognized worldwide for his work on numerical relativity and black holes, as well as in high-performance and grid computing. In 2003, LSU recruited Seidel to lead its investment in the Governor's Information Technology Initiative, and he became director of LSU's newly formed Center for Computation & Technology. Seidel served as CCT director from 2003-2008. Seidel also is the Floating Point Systems Professor in LSU's Departments of Physics & Astronomy and Computer Science. In addition to leading the CCT, he helped initiate, and is presently the chief scientist for, the \$40M Louisiana Optical Network Initiative.

In June 2008, the National Science Foundation selected Seidel as its director for the Office of Cyberinfrastructure. Seidel began this position Sept. 1, 2008, in which he oversees advances in supercomputing, high-speed networking, data storage and software development on a national level. Seidel retains his faculty positions as well as his affiliation with CCT at LSU, and he frequently returns to the center to advise on research, projects and other strategic initiatives.

Seidel earned his Ph.D. from Yale University in relativistic astrophysics. Prior to becoming CCT director, Seidel was a professor at the Max-Planck-Institute for Gravitational Physics (Albert-Einstein-Institute, or AEI) in Germany from 1996-2003. There, Seidel founded and led AEI's numerical relativity and e-science groups, which became leading forces worldwide in solving Einstein's equations using large-scale computers, and in distributed and grid computing. He still maintains a strong affiliation with AEI. LSU and the AEI numerical relativity and computational science groups still work very closely together.

He also was a senior research scientist at the National Center for Supercomputing Applications and associate professor in the Physics Department at the University of Illinois, Urbana-Champaign.

Don Aldridge General Manager, Research & Life Sciences, IBM Canada Ltd.

Don Aldridge joined IBM more than 25 years ago. Since then, he has held a number of technical, sales and management positions. The majority of his career has been spent working with higher education institutions. Aldridge introduced the "ThinkPad University" student mobile computing program in Canada in the early 1990s. In 2003 he established the Life Sciences unit in Canada, working with medical researchers in universities and research hospitals from coast to coast. Currently Aldridge is responsible for research interactions with universities across Canada, focusing on the establishment of collaborative relationships between IBM's scientific organizations and the academic community. He is on variety of boards covering university programs, as well as NSERC, CFI and Genome Canada funded projects. Aldridge received a BSc in Mechanical Engineering from Queen's University in 1982, and an MBA, also from Queen's, in 1984.

- **Highlighted Sessions**

OCCI Working Group

The Open Cloud Computing Interface (OCCI) Working Group will also be presenting their draft open cloud API. Even at this early stage, three implementations are known to be in progress. During the OCCI sessions, potential plans will also be discussed for organizing a set of demonstrations over the coming year around major stakeholder scenarios for open cloud usage.

Requirements for Future Cyberinfrastructure

The infrastructure used to support computational and data-intensive research is changing. This is evident within Europe, where the EGEE (Enabling Grids for e-Science) has evolved into the larger-scale EGI (European Grid Infrastructure), and within the USA, where the investments made in TeraGrid and Open Science Grid projects are now being adapted to new users and additional hardware infrastructure. Similar initiatives are taking place in other parts of the world to accommodate advances in both infrastructure and application science technology. This session is the second in a series of workshops that are gathering cyberinfrastructure / e-infrastructure requirements from end-users. This session will focus on identifying a set of common application use cases and the user communities that need them. This could form the basis of a gap analysis between the current infrastructure offerings and the future needs of particular user communities.

Green IT: Does it Work?

Join leaders from academia, industry and government as they debate the value proposition of green IT and its potential to contribute to research, business and policy objectives. Panelists will share ideas, success stories and lessons learned as they explore the advantages and challenges of translating green IT strategy into practice.

HPC and Grid Computing in the Cloud

HPC and Grid Computing will hold 4 sessions during this event.

Session 1: Presentation of experiences and scenarios by individuals, organizations and projects to illustrate how Cloud computing and virtualization can enhance existing production Grid infrastructures; and architectures for integration of Cloud technologies and services with Grid infrastructures.

Session 2: Presentations about Science Clouds to offer specific services/interfaces, and tools to build cloud services for the scientific & technical computing community.

Session 3: Presentations about research and technology challenges in using Cloud Computing to meet the requirements of HPC applications; limitations of existing cloud providers for the efficient execution of data and compute intensive tightly-coupled applications; impact of virtualization on the performance of memory, CPU and I/O intensive, and latency sensitive applications; and new computing paradigms for HPC on Cloud.

Session 4: Industry Panel about technical, cultural, security, political and legal barriers to implementing Cloud provisioning models in HPC.

IEEE Grid Workshops

There will be 2 sessions for E2GC2: Energy Efficient Grids /CO2 and 2 sessions for Service Level Agreements in Grids. Abstracts for these sessions will be posted online in the near future.

Lessons Learned: High Performance Computing Consortia

Session abstract to be posted online in the near future.

** Abstract topics are subject to change. Please visit <http://www.ogf.org/OGF27/schedule.php> for up-to-date abstracts and schedule.

- **National Park Entrance Fee**

The town of Banff is located within Banff National Park. If you are parking a car (rented or personal) in Banff, you are required to purchase a park pass. Revenues from the park pass fund Banff National Park's daily operations. Passes can be purchased at the gate when entering the national park or at the Parks Canada Information Centre in downtown Banff (224 Banff Avenue). For answers to frequently asked questions regarding the park pass, please visit: http://www.pc.gc.ca/voyage-travel/carte-pass/carte-pass5_e.asp.

Please note, a Park Pass is not required if you enter on a shuttle bus.

Upcoming Events

OGF28

Ludwig-Maximilians-Universität München

Munich, Germany

March 15-19, 2010

OGF returns to Europe for its first event of 2010, and will assemble in Munich, Germany from March 15-19. Nestled in the heart of beautiful Munich, the Ludwig Maximilian University will be the local host of the 28th OGF.



“Munich nestles between art and beer like a village between hills.” Originally written by Heinrich Heine some 150 years ago, these words remain true today.

With the opera and Oktoberfest, Pinakothek art galleries and Hofbräuhaus beer hall, Bayern, Munich and BMW, the city manages to marry vibrant modern life with old Bavarian tradition. It really is a dream city come true.

With its famous onion domes, the 15th century Gothic Church of Our Lady is Munich's unmistakable landmark. Not far away, at Marienplatz, the carillon plays three times a day. And just a stone's throw away is likely the most famous tavern in the world, the Hofbräuhaus beer hall.

Regarding museums, the Pinakothek der Moderne presents modern and contemporary painting and sculpture, jewelry, graphic art and the collection of the architectural museum under one roof. Together with the Alte Pinakothek, the Neue Pinakothek, the Glyptothek museum of Greek and Roman sculptures, the antiquities collection and Lenbach House, it forms a unique arts collection. The German Museum with its branches Verkehrszentrum (transport center) and Flugwerft (aircraft works) is a pioneering museum for technology.