## Agenda

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker(s)</th>
<th>Organization</th>
<th>Topic</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:30</td>
<td>Sill, Alan</td>
<td>Texas Tech University</td>
<td>Workshop Introduction</td>
<td></td>
</tr>
<tr>
<td>8:40</td>
<td>Sill, Alan</td>
<td>Texas Tech University</td>
<td>Recently Released OGF Standards; US Federal and Other Roadmap Efforts</td>
<td></td>
</tr>
<tr>
<td>8:50</td>
<td>Keahey, Kate</td>
<td>Argonne National Laboratory</td>
<td>Nimbus Cloud Computing for Science: Architecture, Status and Future Plans</td>
<td></td>
</tr>
<tr>
<td>9:10</td>
<td>Riteau, Pierre</td>
<td>IRISA/University of Rennes 1</td>
<td>Large Scale Sky Computing Applications with Nimbus</td>
<td></td>
</tr>
<tr>
<td>9:30</td>
<td>Timm, Steven</td>
<td>Fermilab</td>
<td>Security, AuthN/AuthZ and Scaling Performance Topics in FermiCloud</td>
<td></td>
</tr>
<tr>
<td>10:00</td>
<td>Break</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10:20</td>
<td>Papaspyrou, Alexander</td>
<td>TU Dortmund University</td>
<td>Implementation of OGF's Open Cloud Computing Interface on top of libvirt</td>
<td></td>
</tr>
<tr>
<td>10:40</td>
<td>von Laszewski, Gregor</td>
<td>University of Indiana</td>
<td>Current Status and Plans for FutureGrid</td>
<td></td>
</tr>
<tr>
<td>11:00</td>
<td>Tannenbaum, Todd</td>
<td>University of Wisconsin-Madison</td>
<td>From 10K cores on EC2 to 60K cores on OSG - on the fly Condor deployment</td>
<td></td>
</tr>
<tr>
<td>11:20</td>
<td>Zurawski, Jason</td>
<td>Internet2</td>
<td>Scientific Networking with DYNES &amp; LHCONE</td>
<td></td>
</tr>
<tr>
<td>11:40</td>
<td>Teregowda, Pradeep</td>
<td>The Pennsylvania State University</td>
<td>Clouds for Digital Library Search Engines: CiteSee</td>
<td></td>
</tr>
<tr>
<td>12:00</td>
<td>Working Lunch</td>
<td>All Participants</td>
<td>Roundtable: How Can Cloud and Grid Innovation Be Harnessed For Advanced High Performance Computing Needs?</td>
<td></td>
</tr>
<tr>
<td>1:00</td>
<td>Afternoon session</td>
<td>Organizing Committee for July 18 Workshop on Science Agency Uses of Grids and Clouds (members of committee only)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Goals of This Workshop

This workshop is intended to do the following:

1. Call the attention of the community to progress in the field in various HPC-related projects
2. Encourage participation and interchange of information.
3. Map out how OGF and other organizations can and should relate to these efforts.
4. Give detailed information on how to engage, benefit from and participate in both internal and external standards roadmap activities.
RECENTLY RELEASED OGF STANDARDS

Alan Sill, Ph.D
Senior Scientist, High Performance Computing Center
Adjunct Professor of Physics, Texas Tech University
Vice President of Standards, Open Grid Forum

April 14, 2011
Argonne, Illinois, USA
OGF and the Pursuit of Open International Standards:

OGF Standards are:
- Community-based
- Globally developed
- Meant for adoption!
OGF standards are widely adopted in large-scale projects:

The standards and implementations listed here, representing only a partial list of OGF implementations, form the backbone of current business and scientific DCI production distributed computing.

http://www.ogf.org/gf/page.php?page=Standards::Implementations
Recent OGF Documents

- **GFD.175**: Translating From DCN to NDL and Back Again
- **GFD.174**: DFDL v1.0 Specification
- **GFD.176**: Experiences with Implementing the SAGA Core API
- **GFD.177**: SAGA API Extension: Advert API
- **GFD.178**: SAGA API Extension: Message API
- **GFD.179**: Smoa Computing HPC Basic Profile Adoption - Experience Report
- **GFD.180**: OGF-Production Grid Infrastructure: Use Case Collection, Version 1.0
- **GFD.181**: OGF-Production Grid Infrastructure: Glossary of Acronyms and Terms, Version 1.0

- **GFD.170**: Inter-Domain Controller (IDC) Protocol Specification
- **GFD.171**: RNS Specification 1.1
- **GFD.172**: RNS 1.1 OGSA WSRF Basic Profile Rendering 1.0
- **GFD.173**: Network Services Framework v1.0

Dates:
- Dec 1, 2010
- Jan 1, 2011
- Feb 1, 2011
- Mar 1, 2011
- Apr 1, 2011
- May 1, 2011
Inter-Domain Controller (IDC) Protocol Specification
GFD.170
Inter-Domain Controller (IDC) Protocol Specification

GFD.171
RNS Specification 1.1

GFD.172
RNS 1.1 OGSA WSRF Basic Profile Rendering 1.0

GFD.173
Network Services Framework v1.0
GFD.171
RNS Specification 1.1
GFD.172
RNS 1.1 OGSA WSRF Basic Profile Rendering 1.0

GFD.173
Network Services Framework v1.0
GFD.175
Translating From DCN to NDL and Back Again

GFD.174
Data Format Description Language (DFDL) v1.0 Specification

GFD.176
Experiences with Implementing the SAGA Core API

GFD.177
SAGA API Extension: Advert API

GFD.178
SAGA API Extension: Message API

GFD.179
SAGA API Extension: Dynamic Profile Adoption
GFD.174
Data Format Description Language (DFDL) v1.0 Specification
GFD.176
Experiences with Implementing the SAGA Core API
Experiences with Implementing the SAGA Core API

GFD.177
SAGA API Extension: Advert API

GFD.178
SAGA API Extension: Message API

GFD.179
Smoa Computing HPC Basic Profile Adoption - Experience Report

GFD.180
OGF-Production Grid Infrastructure: Use Case Collection, Version 1.0
GFD.176
Experiences with Implementing the SAGA Core API

GFD.177
SAGA API Extension: Advert API

GFD.178
SAGA API Extension: Message API

GFD.179
Smoa Computing HPC Basic Profile Adoption - Experience Report

GFD.180
OGF-Production Grid Infrastructure: Use Case Collection, Version 1.0

GFD.181
OGF-Production Grid Infrastructure: Glossary of Acronyms
GFD.177
SAGA API Extension: Advert API

GFD.178
SAGA API Extension: Message API

GFD.179
Smoa Computing HPC Basic Profile Adoption – Experience Report

GFD.180
OGF-Production Grid Infrastructure: Use Case Collection, Version 1.0

GFD.181
OGF-Production Grid Infrastructure: Glossary of Acronyms and Terms, Version 1.0
GFD.180
OGF-Production Grid Infrastructure: Use Case Collection, Version 1.0

GFD.181
OGF-Production Grid Infrastructure: Glossary of Acronyms and Terms, Version 1.0
Recent OGF Documents

- GFD.175: Translating From DCN to NDL and Back Again
- GFD.174: Data Format Description Language (DFDL) v1.0 Specification
- GFD.176: Experiences with Implementing the SAGA Core API
- GFD.177: SAGA API Extension: Advert API
- GFD.178: SAGA API Extension: Message API
- GFD.179: Smoa Computing HPC Basic Profile Adoption – Experience Report
- GFD.180: OGF-Production Grid Infrastructure: Use Case Collection, Version 1.0
- GFD.181: OGF-Production Grid Infrastructure: Glossary of Acronyms and Terms, Version 1.0

Dates:
- Dec 1, 2010
- Jan 1, 2011
- Feb 1, 2011
- Mar 1, 2011
- Apr 1, 2011
- May 1, 2011
OCCI® by OGF

Core and Infrastructure Specifications Released April 7, 2011!

GFD.183
GFD.184
Standards Roadmap Efforts

Major governmental and other regional roadmaps we are involved in:

- SIENA: European e-Government and e-Science
  http://www.sienainitiative.eu

- US National Institute of Standards and Technology (NIST)
  http://www.nist.gov/itl/cloud/

- Global Inter-Cloud Technology Forum (Japan):
  http://www.gictf.jp
Major Standards Development Organizations

Major industry-based and other broadly-scoped SDOs with OGF contact:

- ITU-T
- Telecom Cloud
- DMTF
- SNIA
- CSA
- IEEE (several divisions)
- Asia Cloud Computing Association
- Others
OGF Cooperative Agreements

**OCCI and DMTF:**
- OGF plans to publish the current version of the OCCI Core, Infrastructure and HTTP Rendering documents shortly, and is in advanced conversations with DMTF with respect to extending their collaboration to allow joint work on refinements of these and related specifications.

**OCCI and CDMI:**
- OGF has a cooperative agreement in place with SNIA that is near completion and the organizations plan to ratify.

**OGF and CSA:**
- OGF and CSA have a cooperative agreement in place that will inform the future development of security architectures.
OGF Standards Come From The Community!

OGF Standards are:
- Community-based
- Globally developed
- Meant for adoption!

E-mail: standards@ogf.org

http://ogf.org
Agenda

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker Name</th>
<th>Affiliation</th>
<th>Topic</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:30 AM</td>
<td>Sill, Alan</td>
<td>Texas Tech University</td>
<td>Workshop Introduction</td>
<td></td>
</tr>
<tr>
<td>8:40 AM</td>
<td>Sill, Alan</td>
<td>Texas Tech University</td>
<td>Recently Released OGF Standards; US Federal and Other Roadmap Efforts</td>
<td></td>
</tr>
<tr>
<td>8:50 AM</td>
<td>Keahey, Kate</td>
<td>Argonne National Laboratory</td>
<td>Nimbus Cloud Computing for Science: Architecture, Status and Future Plans</td>
<td></td>
</tr>
<tr>
<td>9:10 AM</td>
<td>Riteau, Pierre</td>
<td>IRISA/University of Rennes 1</td>
<td>Large Scale Sky Computing Applications with Nimbus</td>
<td></td>
</tr>
<tr>
<td>9:30 AM</td>
<td>Timm, Steven</td>
<td>Fermilab</td>
<td>Security, AuthN/AuthZ and Scaling Performance Topics in FermiCloud</td>
<td></td>
</tr>
<tr>
<td>10:00 AM</td>
<td>Break</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10:20 AM</td>
<td>Papaspyrou, Alexander</td>
<td>TU Dortmund University</td>
<td>Implementation of OGF's Open Cloud Computing Interface on top of libvirt</td>
<td></td>
</tr>
<tr>
<td>10:40 AM</td>
<td>von Laszewski, Gregor</td>
<td>University of Indiana</td>
<td>Current Status and Plans for FutureGrid</td>
<td></td>
</tr>
<tr>
<td>11:00 AM</td>
<td>Tannenbaum, Todd</td>
<td>University of Wisconsin-Madison</td>
<td>From 10K cores on EC2 to 60K cores on OSG - on the fly Condor deployment</td>
<td></td>
</tr>
<tr>
<td>11:20 AM</td>
<td>Zurawski, Jason</td>
<td>Internet2</td>
<td>Scientific Networking with DYNES &amp; LHCONE</td>
<td></td>
</tr>
<tr>
<td>11:40 AM</td>
<td>Teregowda, Pradeep</td>
<td>The Pennsylvania State University</td>
<td>Clouds for Digital Library Search Engines: CiteSee</td>
<td></td>
</tr>
<tr>
<td>12:00 PM</td>
<td>Working Lunch</td>
<td>All Participants</td>
<td>Roundtable: How Can Cloud and Grid Innovation Be Harnessed For Advanced High Performance Computing Needs?</td>
<td></td>
</tr>
<tr>
<td>1:00 PM</td>
<td>Afternoon session</td>
<td>Organizing Committee for July 18 Workshop on Science Agency Uses of Grids and Clouds (members of committee only)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>