ACM ScienceCloud 2013

4th Workshop on Scientific Cloud Computing

http://datasys.cs.iit.edu/events/ScienceCloud2013/

co-located with ACM High Performance Distributed Computing (HPDC) 2013
New York City, NY -- June 17th, 2013

Committee Members

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Topics:

- Scientific application cases studies on Clouds
- Performance evaluation of Cloud technologies
- Fault tolerance and reliability in cloud systems
- Data-intensive workloads and tools on Clouds
- Programming models such as Map-Reduce
- Storage cloud architectures
- I/O and Data management in the Cloud
- Workflow and resource management in the Cloud
- NoSQL databases for scientific applications
- Data streaming and dynamic applications on Clouds
- Dynamic resource provisioning
- Many-Task Computing in the Cloud
- Application of cloud concepts in HPC environments
- Virtualized High performance parallel file systems
- Virtualized high performance I/O networks
- Virtualization and its Impact on Applications
- Distributed Operating Systems
- Many-core computing and accelerators in the Cloud
- Cloud security

The 4th workshop on Scientific Cloud Computing (ScienceCloud) will provide the scientific community a dedicated forum for discussing new research, development, and deployment efforts in running these kinds of scientific computing workloads on Cloud Computing infrastructures. The ScienceCloud workshop will focus on the use of cloud-based technologies to meet new compute-intensive and data-intensive scientific challenges that are not well served by the current supercomputers, grids and HPC clusters. The workshop will aim to address questions such as: What architectural changes to the current cloud frameworks (hardware, operating systems, networking and/or programming models) are needed to support science? Dynamic information derived from remote instruments and coupled simulation, and sensor ensembles that stream data for real-time analysis are important emerging techniques in scientific and cyber-physical engineering systems. How can cloud technologies enable and adapt to these new scientific approaches dealing with dynamism? How are scientists using clouds? Are there scientific HPC/HTC/MTC workloads that are suitable candidates to take advantage of emerging cloud computing resources with high efficiency? Commercial public clouds provide easy access to cloud infrastructure for scientists. What are the gaps in commercial cloud offerings and how can they be adapted for running existing and novel eScience applications? What benefits exist by adopting the cloud model, over clusters, grids, or supercomputers? What factors are limiting clouds use or would make them more usable/efficient? This workshop encourages interaction and cross-pollination between those developing applications, algorithms, software, hardware and networking, emphasizing scientific computing for such cloud platforms. We believe the workshop will be an excellent place to help the community define the current state, determine future goals, and define architectures and services for future science clouds.

Important Dates

Papers Due: February 11th, 2013
Notification of Acceptance: March 18th, 2013
Workshop Date: June 17th, 2013

Web Site: http://datasys.cs.iit.edu/events/ScienceCloud2013/
More Information: Contact Ioan Raicu at iraicu@cs.iit.edu