Springer Journal of Grid Computing

Special Issue on
Data Intensive Computing in the Clouds

http://datasys.cs.iit.edu/events/JGC-DataCloud-2012/index.html

Topics

Authors are invited to submit original and un-published technical papers in these topics:

- *Data-intensive cloud computing applications, characteristics, challenges*
- *Case studies of data intensive computing in the clouds*
- *Performance evaluation of data clouds, data grids, and data centers*
- *Energy-efficient data cloud design and management*
- *Data placement, scheduling, and interoperability in the clouds*
- *Accountability, QoS, and SLAs*
- *Data privacy and protection in a public cloud environment*
- *Distributed file systems for clouds*
- *Data streaming and parallelization*
- *New programming models for data-intensive cloud computing*
- *Scalability issues in clouds*
- *Social computing and massively social gaming*
- *3D Internet and implications*
- *Future research challenges in data-intensive cloud computing*

Guest Editors

Ioan Raicu, Illinois Institute of Technology
& Argonne National Laboratory
Tevfik Kosar, University at Buffalo

Editors-in-Chief

Peter Kacsuk, Hungarian Academy of Sciences
Ian Foster, University of Chicago
& Argonne National Laboratory

Overview

Applications and experiments in all areas of science are becoming increasingly complex and more demanding in terms of their computational and data requirements. Some applications generate data volumes reaching hundreds of terabytes and even petabytes. As scientific applications become more data intensive, the management of data resources and dataflow between the storage and compute resources is becoming the main bottleneck. Analyzing, visualizing, and disseminating these large data sets has become a major challenge and data intensive computing is now considered as the "fourth paradigm" in scientific discovery after empirical, theoretical, and computational scientific approaches.

The Special Issue on Data Intensive Computing in the Clouds will provide the scientific community a dedicated forum, within the prestigious Springer Journal of Grid Computing, for presenting new research, development, and deployment efforts in running data-intensive computing workloads on Cloud Computing infrastructures. This special issue will focus on the use of cloud-based technologies to meet the new data intensive scientific challenges that are not well served by the current supercomputers, grids or compute-intensive clouds. We believe this venue will be an excellent place to help the community define the current state, determine future goals, and present architectures and services for future clouds supporting data intensive computing.

Important Dates

Papers Due: August 16th, 2011
First Round Decision: October 15th, 2011
Second Round Decision: December 15th, 2011
Final Decision: February 1st, 2012
Publication Date: June 2012

Web Site: http://datasys.cs.iit.edu/events/JGC-DataCloud-2012/
Submission Site: http://grid.edmgr.com/
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