

Workshop on High Performance Interconnects for Distributed Computing (HPI-DC'09)

In conjunction with Cluster 2009

August 31, 2009
New Orleans, Louisiana

www.cercs.gatech.edu/hpidc2009

Call for Papers

The emergence of 10.0 GigE and above, InfiniBand and other high-performance interconnection technologies, programmable NICs and networking platforms, and protocols like DDP and RDMA over IP, make it possible to create tightly linked systems across physical distances that exceed those of traditional single cluster or server systems. These technologies can deliver communication capabilities that achieve the performance levels needed by high end applications in enterprise systems and like those produced by the high performance computing community. Furthermore, the manicomore nature of next generation platforms and the creation of distributed cloud computing infrastructure will greatly increase the demand for high performance communication capabilities over wide area distances.

The purpose of this workshop is to explore the confluence of distributed computing and communications technologies with high performance interconnects, as applicable or applied to realistic high end applications. The intent is to create a venue that will act as a bridge between researchers developing tools and platforms for high-performance distributed computing, end user applications seeking high performance solutions, and technology providers aiming to improve interconnect and networking technologies for future systems. The hope is to foster knowledge creation and intellectual interchanges between HPC and Cloud computing end users and technology developers, in the specific domain of high performance distributed interconnects.

Topics of interest include but are not limited to:

- Hardware/software architectures for communication infrastructures for HPC and Cloud Computing
- Data and control protocols for interactive and large data volume applications
- Novel devices and technologies to enhance interconnect properties
- Interconnect-level issues when extending high performance beyond single machines, including architecture, protocols, services, QoS, and security
- Remote storage (like iSCSI), remote databases, and datacenters, etc.
- Development tools, programming environments and models (like PGAS, OpenShmem, Hadoop, etc.), ranging from programming language support to simulation environments.

PAPER SUBMISSIONS:

HPI-DC invites authors to submit original and unpublished work. Please submit extended abstracts or full papers, not exceeding 8 double-column pages in 10 point

font or larger, in IEEE format. Electronic submission is strongly encouraged. Hard copies will be accepted only if electronic submission is not possible. Submission implies the willingness of at least one of the authors to register and present the paper. Any questions concerning hardcopy submissions or any other issues may be directed to the Program Co-Chairs.

IMPORTANT DATES:

Paper submission: June 19th, 2009

Notification of acceptance: July 10th, 2009

Final manuscript due: July 29th, 2009

Workshop date: Aug. 31st, 2009

ORGANIZATION:

General Chair

Steve Poole, Oak Ridge National Lab

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Pavan Balaji, Argonne National Lab

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