Subject: CfP 6th Workshop on Virtualization in High-Performance Cloud Computing (VHPC'11)
Posted by VHPC 11 on Wed, 16 Mar 2011 20:08:30 GMT
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CfP 6th Workshop on Virtualization in High-Performance Cloud Computing
(VHPC'11)

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CALL FOR PAPERS

6th Workshop on

Virtualization in High-Performance Cloud Computing

VHPC'11

as part of Euro-Par 2011, Bordeaux, France

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Date: August 30, 2011

Euro-Par 2011: http://europar2011.bordeaux.inria.fr/

Workshop URL: http://vhpc.org

SUBMISSION DEADLINE:

Abstracts: May 2, 2011
Full Paper: June 13, 2011

Scope:

Virtualization has become a common abstraction layer in modern data centers, enabling resource owners to manage complex infrastructure independently of their applications. Conjointly virtualization is becoming a driving technology for a manifold of industry grade IT services. The cloud concept includes the notion of a separation between resource owners and users, adding services such as hosted application frameworks and queuing. Utilizing the same infrastructure, clouds carry significant potential for use in high-performance scientific computing. The ability of clouds to provide for

requests and releases of vast computing resource dynamically and close to the marginal cost of providing the services is unprecedented in the history of scientific and commercial computing.

Distributed computing concepts that leverage federated resource access are popular within the grid community, but have not seen previously desired deployed levels so far. Also, many of the scientific datacenters have not adopted virtualization or cloud concepts yet.

This workshop aims to bring together industrial providers with the scientific community in order to foster discussion, collaboration and mutual exchange of knowledge and experience.

The workshop will be one day in length, composed of 20 min paper presentations, each followed by 10 min discussion sections. Presentations may be accompanied by interactive demonstrations. It concludes with a 30 min panel discussion by presenters.

TOPICS

Topics include, but are not limited to, the following subjects:

- Virtualization in cloud, cluster and grid environments
- VM-based cloud performance modeling
- Workload characterizations for VM-based environments
- Software as a Service (SaaS)
- Cloud reliability, fault-tolerance, and security
- Cloud, cluster and grid filesystems
- QoS and and service levels
- Cross-layer VM optimizations
- Virtualized I/O and storage
- Virtualization and HPC architectures including NUMA
- System and process/bytecode VM convergence
- Paravirtualized driver development
- Research and education use cases
- VM cloud, cluster distribution algorithms
- MPI on virtual machines and clouds
- Cloud frameworks and API sets
- Checkpointing of large compute jobs
- Cloud load balancing
- Accelerator virtualization
- Instrumentation interfaces and languages
- Hardware support for virtualization
- High-performance network virtualization
- Auto-tuning of VMM and VM parameters
- High-speed interconnects
- Hypervisor extensions and tools for cluster and grid computing
- VMMs/Hypervisors

- Cloud use cases including optimizations
- Performance modeling
- Fault tolerant VM environments
- VMM performance tuning on various load types
- Cloud provisioning
- Virtual machine monitor platforms
- Pass-through VM device access
- Management, deployment of VM-based environments

PAPER SUBMISSION

Papers submitted to the workshop will be reviewed by at least two members of the program committee and external reviewers. Submissions should include abstract, key words, the e-mail address of the corresponding author, and must not exceed 10 pages, including tables and figures at a main font size no smaller than 11 point. Submission of a paper should be regarded as a commitment that, should the paper be accepted, at least one of the authors will register and attend the conference to present the work.

Accepted papers will be published in the Springer LNCS series - the format must be according to the Springer LNCS Style. Initial submissions are in PDF, accepted papers will be requested to provided source files.

Format Guidelines: http://www.springer.de/comp/lncs/authors.html
Submission Link: http://edas.info/newPaper.php?c=10155

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DURATION: Workshop Duration is one day.

GENERAL INFORMATION

The workshop will be held as part of Euro-Par 2011,
organized by INRIA, CNRS and the University of Bordeaux I, II, France.
Euro-Par 2011: http://europar2011.bordeaux.inria.fr/