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(Editor-in-Chief: Kuan-Ching Li)



Special Issue on “Advanced Challenges and Research Trends in Cloud and Grid Interoperability”

Introduction

"Cloud" is a common metaphor for an Internet accessible infrastructure, hiding most of the implementation and deployment details in the field of ICT. Cloud Computing is becoming a scalable services delivery and consumption platform. The backbone behind Cloud Computing includes Service-Oriented Architecture (SOA) and Virtualization of hardware and software. The goal of Cloud Computing is to share resources among the cloud service consumers, cloud partners and cloud vendors in the cloud value chain. Cloud computing has been envisaged to be one of the main stream powering technologies of future ICT and next generation network. This Special Issue (SI) will be focused on Interoperability issues of grid and computing domain. It mainly focus on designing interoperable components, experiences and lessons learnt from developing interoperable services in the cloud and grid environment. The SI aims at providing a forum to bring together researchers for sharing and exchanging cloud and Grid computing related research, technologies, experience, and lessons for building clouds of interoperability and coordination capabilities and services. We believe this SI will be a place to help the research community to define their novel ideas in the current state of grid-cloud interoperability issues. In addition the SI will help to define the future goals and services that cloud needs to support in various intensive commercial and enterprise applications.

Topics

Topics of interest include, but are not limited to:

- Cloud Architectures
- Software, platform, hardware, and infrastructure as a Service
- Novel architectural models for cloud computing and grid-cloud interoperability
- Scalable resource management solutions
- Cloud resource provisioning with QoS
- High availability with failure detection, prediction, and recovery
- Identity, metering, and privacy in Cloud
- Management of virtualized resources
- Workload and resource scheduling
- New parallel / concurrent programming models for cloud computing
- Content Delivery Networks using Storage Clouds
- Interoperability / portability of applications and data between different cloud providers
- Virtualization Technologies
- Service-oriented Computing
- Management of Clouds
- Security issues in cloud and grid computing
- Fault tolerance , Reliability of applications and services running on the cloud
- Case studies of the cloud and grid computing

Submission Details

Prospective invited authors should submit full manuscripts with PDF format, electronically by e-mail to Corresponding Guest Editor, Prof. James J. (Jong Hyuk) Park (jonghyuk09@gmail.com).

Important Dates (Tentative)

Submission of papers: September 30, 2011
First-round acceptance notification: December 30, 2011

Final decision: January 30, 2012
Publication of special issue: 2Q/3Q in 2012

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