



Call for Papers

Special Issue on Cloud Computing



Guest Editors

Danilo Ardagna, Politecnico di Milano, Italy, danilo.ardagna@polimi.it

Lutz Schubert, University of Ulm, Germany, lutz.schubert@uni-ulm.de

Aims and objectives

Cloud computing is growing daily, providing a vibrant technical environment where innovative solutions and services can be created. The Cloud promises the capability for cheap and flexible services for end-users and allows small organizations and individuals to host and offer world-scale services, themselves.

However, while there has been substantial research in the field already, there still remain open challenges: Cloud business models and technologies introduce critical issues, such as proprietary API and lack of interoperability. The choice of the application architecture matching and fully exploiting the characteristics of the underlying Cloud environments is also critical. At the infrastructural layer, resource contentions lead to unpredictable performance and additional work for resource management, automated VM and service migration is still needed. Also networks are frequently the Cloud bottleneck and data center energy management is very challenging.

Subject Coverage

Topics of interest include, but are not limited to:

- Cloud economic and business models
- Risk analysis for Cloud migration, trust, security and legal implications
- Cloud programming models
- Model-driven design of Cloud applications
- Early prototyping, automatic code generation, and deployment of Cloud applications
- Portability of Cloud based applications
- Open-source support for Cloud computing

- Architectures for self-management of Cloud applications
- Cloud computing middleware, stacks, and tools on all layers (XaaS)
- Performance, availability, and scalability of Cloud services
- Monitoring , dynamic capacity allocation and load balancing for Cloud applications, auto-scaling techniques
- Cloud benchmarking and workload characterization
- Virtualization platforms and management of virtual appliances
- Cloud storage architectures and NoSQL systems
- Cloud Data Centers energy efficiency
- Data Centers network architectures and network virtualization
- Hybrid Clouds, Cloud federations and multi-cloud applications
- Novel Cloud applications and case studies

Paper Submission

Papers submitted to this special issue for possible publication must be original and must not be under consideration for publication in any other journal or conference. Previously published or accepted conference/workshop papers must contain at least 30% new material to be considered for the special issue (for workshop 50% new content is required). All papers are to be submitted by referring to <http://www.springer.com/607>. During submission please select “Special Issue” under Manuscript Category. All manuscripts must be prepared according to the journal publication guidelines which can also be found on the website provided above. Papers will be reviewed following the journal standard review process.

Important Dates

Submission: 1st July 2013

First Notification: 1st September 2013

Revision submission: 1st November 2013

Second notification: 1st December 2013

Final version submission: 2nd January 2014