CALL FOR PAPERS

IEEE Micro Special Issue
Datacenter Computing

JULY/AUGUST 2010

Much of our computing needs today are fulfilled not from software installed in locally accessible desktop machines but from programs and services that run in large computing clusters, accessible through high-speed Internet links. Personal data, such as photos and video, is also starting to move from home devices to Internet-accessible storage services due to the added convenience of access and ease of manageability. The computing infrastructure behind these computing and storage services is the subject of this special issue.

We solicit original submissions on topics related to the design, operation, and usage of datacenter-scale computing systems.

Areas of interest include, but are not limited to

- Datacenter architecture and organization
- Hardware/software infrastructure and interfaces for cloud computing systems
- Cost-efficiency analysis of design options for datacenter hardware, software infrastructure, and workloads
- Reliability and fault-tolerance of datacenters and datacenter workloads
- Cluster-level benchmarking, monitoring, and modeling
- Processor, storage, and networking technologies for datacenter computing
- Use of new nonvolatile memory technologies in datacenter designs, including distributed storage systems, online serving, and large data-processing systems
- Peak power and temperature-management techniques
- Energy efficiency of datacenters and datacenter computing components
- Software infrastructure for datacenter scheduling and resource management
- Cloud computing workload characterizations and deployment case studies

Submission procedure

Log onto IEEE CS Manuscript Central at http://mc.manuscriptcentral.com/cs-ieee, and submit your manuscript. Please direct questions to the IEEE Micro magazine assistant at micro-ma@computer.org. For the manuscript submission, acceptable file formats include Microsoft Word and PDF. Manuscripts should not exceed 5,000 words including references, with each average-size figure counting as 150 words toward this limit.

Please include all figures and tables, as well as a cover page with author contact information (name, postal address, phone, fax, and e-mail address) and a 200-word abstract. Submitted manuscripts must not have been previously published or currently submitted for publication elsewhere, and all manuscripts must be cleared for publication. Accepted articles will be edited for structure, style, clarity, and readability. For more information, please visit the IEEE Micro Author Center, online at http://www.computer.org/portal/pages/micro/mc/author.html.

Guest editors

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Key dates

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Author notification: 12 March 2010
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