

# 6th Cloud Control Workshop (CloudControl6)

London, December 8, 2014

## Call For Papers

[www.cloudresearch.org/workshops/6th](http://www.cloudresearch.org/workshops/6th)

Cloud computing has become the dominant paradigm to fulfill compute and storage needs while hiding the underlying complexity of resource management. However, under the hood, many parameters at both software and hardware level need to be controlled to ensure the reliability, performance, and energy efficiency of cloud applications. Furthermore, workload variability and software heterogeneity make optimal parameter selection complex, which combined with the large scale of clouds call for distributed resource management solutions.

The workshop is aimed to foster multidisciplinary research in Cloud Control, leveraging expertise in areas such as distributed systems, control theory, autonomic computing, systems management, mathematical statistics, energy management, and performance management. By providing an understanding of the research challenges ahead and by enabling multi-disciplinary research collaborations, the ambition is to shape the future of cloud management.

The workshop is held in conjunction with the 7th IEEE/ACM Conference on Utility and Cloud Computing (UCC 2014), December 8-12. Expected attendees are leading researchers from any scientific discipline with potential to contribute to this multidisciplinary topic.

**Workshop Format.** For the first time in the workshop series, the workshop is open for contributed papers in addition to invited presentations and discussion sessions.

**Keynote Speakers.** The workshop includes the following three keynote speakers:

- Adrian Cockcroft, Battery Ventures (prev. Netflix, eBay, Sun)
- John Wilkes, Google
- Ant Rawstron, Microsoft Research

**Topics.** Relevant topics are cloud management methods, systems, and principles including any methods from other disciplines supporting the realization of management systems. Target clouds include the whole range of architectures, spanning from single cloud datacenters to highly distributed telecom or mobile clouds. Examples topics are:

- Management of cloud resources (compute, storage, network, etc)
- Cloud scheduling
- Scalability and capacity autoscaling (elasticity management)
- Differentiated quality of service
- Resource overbooking
- High availability and reliability
- Managing complex cloud applications
- Cloud simulation
- Cloud workload modeling, prediction, and generation
- Performance management and QoS
- Energy-efficient resource provisioning
- Control theory for cloud management
- Autonomic computing for cloud management
- Machine learning for cloud management

### Important dates

Paper submissions: August 5, 2014

Notification of acceptance: August 29, 2014

Early registration deadline (main UCC 2014 registration): September 29, 2014

## Workshop Details

**Paper format.** Contributed papers should be of maximum 6 pages in length (in IEEE format). Additional pages may be purchased subject to approval by the proceedings chair.

**Paper submission.** For further instructions and submission system access, please visit the workshop website at [www.cloudresearch.org/workshops/6th](http://www.cloudresearch.org/workshops/6th)

**Paper selection.** Contributed papers will be selected based on reviews provided by the workshop's Program Committee. Evaluation criteria include novelty, scientific quality, and relevance to the workshop topic.

**Proceedings.** Accepted papers will be published by IEEE in the main UCC 2014 proceedings. For inclusion in the workshop program and the conference proceedings, at least one author of each accepted submission must register and attend the workshop.

**Venue.** Hilton London Paddington Hotel, London, UK

## Organizing Committee

Erik Elmroth, Umeå University, Sweden (Workshop chair)  
Maria Kihl, Lund University, Sweden (Workshop co-chair)  
Martina Maggio, Lund University, Sweden (Publicity)  
Per-Olov Östberg, Umeå University, Sweden (Publicity)  
Cristian Klein, Umeå University, Sweden (Proceedings)  
Ahmed Ali-Eldin, Umeå University, Sweden (Proceedings)  
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## Program Committee

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Craig Sheridan, Flexiant, UK  
Rolf Stadler, Royal Institute of Technology, Sweden  
Giovanni Toffetti, IBM Haifa Research Lab, Israel  
Johan Tordsson, Umeå University, Sweden  
Simon Tuffs, simontuffs.com, USA  
Bhuvan Ugaonkar, Penn State University, USA  
Vladimir Vlassov, Royal Institute of Technology, Sweden  
John Wilkes, Google, USA  
Ramin Yahyapour, University of Göttingen, Germany  
Jianguo Yao, Shanghai Jiao Tong University, China  
Xiaoyun Zhu, VMware inc., USA