

# Reengineering Cloud Data Centers—Call for Papers

**IEEE Cloud Computing Magazine - Special Issue**

**Submission Deadline: 3 March 2018**

**Publication Date: November/December 2018**

As computation extends more widely and deeply into all areas of society, business, and educational fields, it is necessary to re-examine the role of the data centers that support these functions, taking into account considerations of security, speed and latency of access, dynamic provisioning of resources, transportability, protection, and provenance of data, and other engineering factors.

The goal of this special issue is to seek original articles on new methods that extend the state of the art and that highlight best practices to achieve highly capable, robust, scalable data centers that are well suited to serving the infrastructure needs of large-scale clouds in an increasingly distributed world.

Topics of interest include but are not limited to:

- Robust engineering of data center equipment for automated operations
- Cloud software stacks, platforms and support infrastructures
- Support for critical, failure-intolerant applications such as emergency management
- Data center automation, analytics, and control
- Internal security for multi-tenant operations
- Secure remote control and communication infrastructures
- Container and virtualization technologies
- Distributed multi-data-center operations
- Power systems and close control for energy-efficient operations
- Management of workflows to achieve energy savings
- Remote management and data center monitoring systems
- Autonomic systems for error detection, correction, and failover
- Engineering data center equipment for wider tolerance in environmental operating conditions
- Extremely large, and extremely small data centers, edge computing topologies
- Methods to improve and generalize control of data center equipment
- Standards and protocols for data center operations
- Hardware and software optimization
- Regulation and international standards
- Educating the workforce in data center design and operation principles

## Important Dates

Paper submission due: 3 March 2018

First review notification: 16 April 2018

Revision submission: 31 May 2017

Second review notification: 28 June 2018

Acceptance notification: 15 July 2018

# Special Issue Guest Editors

Alan Sill, Texas Tech University

Josef Spillner, Zurich University of Applied Sciences

## Submission Information

Submissions should be 3,000 to 5,000 words long, with a maximum of 15 references, and should follow the magazine's guidelines on style and presentation (see <https://www.computer.org/web/peer-review/magazines> for full author guidelines). All submissions will be subject to single-blind, anonymous review in accordance with normal practice for scientific publications.

Authors should not assume that the audience will have specialized experience in a particular subfield. All accepted articles will be edited according to the IEEE Computer Society style guide ([www.computer.org/web/publications/styleguide](http://www.computer.org/web/publications/styleguide)).

Submit your papers through Manuscript Central at <https://mc.manuscriptcentral.com/ccm-cs>.