



# 6th USENIX Workshop on Hot Topics in Storage and File Systems (HotStorage '14)

Sponsored by USENIX, the Advanced Computing Systems Association

June 17–18, 2014, Philadelphia, PA

*HotStorage '14 will take place during USENIX Federated Conferences Week, June 17–20, 2014.*

## Important Dates

Submissions due: *March 13, 2014, 11:59 p.m. PDT*

Notification to authors: *April 11, 2014*

Final paper files due: *May 8, 2014*

## Workshop Organizers

### Program Chair

Steven Swanson, *University of California, San Diego*

### Program Committee

Nitin Agrawal, *NEC*

Andrea Arpaci-Dusseau, *University of Wisconsin—Madison*

Anirudh Badam, *Microsoft Research*

Zvonimir Bandic, *Hitachi*

Al Borchers, *Google*

Ed Nightingale, *Microsoft Research*

Nohhyun Park, *CloudPhysics*

Dan R. K. Ports, *University of Washington*

Raju Rangaswami, *Florida International University*

Raja Sambasivan, *Carnegie Mellon University*

Douglas Santry, *NetApp*

Steve Schlosser, *Avere Systems*

Craig Soules, *Natero*

Nisha Talagala, *FusionIO*

Avishay Traeger, *IBM*

Cristian Ungureanu, *NEC*

Sandeep Uttamchandani, *VMware*

Hakim Weatherspoon, *Cornell University*

Yiyang Zhang, *University of California, San Diego*

### Steering Committee

Irfan Ahmad, *CloudPhysics*

Brian Noble, *University of Michigan*

Erik Riedel, *EMC*

Jiri Schindler, *Simplivity*

Eno Thereska, *Microsoft Research*

## Overview

In its 6th edition, HotStorage will continue to showcase the latest in storage systems design, implementation, management, and evaluation. Over the past few years, storage systems have been changing at a breakneck pace. Architectures are evolving rapidly, with many fundamental shifts. Disk-based networked storage arrays are embracing hybrid, tiering, and caching-based models. Locally attached storage is back in vogue. Thin provisioning,

multi-tiering, compression, and deduplication are becoming standard features for inline storage. We are seeing disruption in multiple forms: flash-only networked storage, node-local low-latency storage, and the emerging NoSAN and NoFS paradigms. Flash continues to reshape the storage landscape as it continues to scale past all expectations, while new memory storage technologies promise even greater disruptions to come. Virtualization and multi-core hardware continue to place increasing demands on storage systems. Public and private clouds are also demanding low-cost, highly-scalable, and high-performant storage. Storage QoS is now a watchword, especially in the context of SSDs. “Big Data,” data analytics, distributed key-value stores (such as NoSQL), and the proliferation of storage devices in consumer electronics all offer exciting opportunities and challenges.

We expect that workshop submissions will advocate fresh, unorthodox, unexpected, controversial, and counterintuitive approaches advancing the state of the art in many of the areas listed below. Work presented at HotStorage should have the potential to lead to publications in future top-tier systems conferences. The HotStorage workshop aims to provide a forum for the cutting edge in storage research where researchers can exchange ideas and engage in discussions with their colleagues. We also welcome controversial and disruptive ideas whose time is yet to come!

## Topics

Topics of interest include but are not limited to:

- Archival storage
- Cloud storage
- Caching, tiering, and replication
- Energy-efficient storage
- File system design
- Key-value and NoSQL storage
- Mobile storage
- New and complex memory hierarchies
- Distributed storage architectures and data consistency
- Programming models for new memories
- Solid-state storage
- Storage and server convergence
- Storage at home
- Storage security
- Storage performance modeling and prediction
- Storage quality of service
- The challenges of “Big Data”
- Software-defined Storage

## Logistics and Submission Instructions

This will be a 1–2 day workshop. At least one author of each accepted paper must attend the workshop to present the paper. The presentations should stimulate healthy discussion among the workshop participants. Presentation details and guidelines will be communicated to the authors of the accepted papers.

Submitted papers must be no longer than five two-column pages, including all figures and references. They should be submitted electronically, via the Web submission form linked from the Call for Papers Web site, [www.usenix.org/hotstorage14/cfp](http://www.usenix.org/hotstorage14/cfp), as PDF documents that are viewable by standard tools. Submissions must follow the USENIX formatting guidelines: 10-point type on 12-point (single-spaced) leading, with the text block being no more than 6.5" wide by 9" deep. See the detailed formatting requirements linked from the CFP Web site.

Simultaneous submission of the same work to multiple venues, submission of previously published work, or plagiarism constitutes dishonesty or fraud. USENIX, like other scientific and technical conferences and journals, prohibits these practices and may take action against authors who have committed them. See the USENIX Conference Submissions Policy at [www.usenix.org/conferences/submissions-policy](http://www.usenix.org/conferences/submissions-policy) for details. Questions? Contact your program chair, [hotstorage14chair@usenix.org](mailto:hotstorage14chair@usenix.org), or the USENIX office, [submissionspolicy@usenix.org](mailto:submissionspolicy@usenix.org).

The review process is not blind. The names and affiliations of the authors should be included on the first page. The names of the reviewers, however, will remain anonymous. Papers accompanied by nondisclosure agreement forms will not be considered. Accepted submissions will be treated as confidential prior to publication on the USENIX HotStorage '14 Web site; rejected submissions will be permanently treated as confidential.

All papers will be available online to registered attendees before the workshop. If your accepted paper should not be published prior to the event, please notify [production@usenix.org](mailto:production@usenix.org). The papers will be available online to everyone beginning on the first day of the workshop, June 17, 2014.

