



2nd Workshop on Interactions of NVM/Flash with Operating Systems and Workloads (INFLOW '14)

Sponsored by USENIX, the Advanced Computing Systems Association

October 5, 2014, Broomfield, CO

INFLOW '14 will be co-located with the 11th USENIX Symposium on Operating Systems Design and Implementation (OSDI '14) and take place on Sunday, October 5, 2014.

Important Dates

Full paper submissions due: July 1, 2014, 11:59:59 p.m. PDT

Notification of acceptance: August 18, 2014

Final paper files due: September 4, 2014

Conference Organizers

Program Co-Chairs

Kaoutar El Maghraoui, IBM T. J. Watson Research Center

Gokul Kandiraju, IBM T. J. Watson Research Center

Program Committee

Nitin Agrawal, NEC Labs

Mahesh Balakrishnan, Microsoft Research

Philippe Bonnet, IT University of Copenhagen, Denmark

Michele M. Franceschini, IBM T. J. Watson Research Center

K. Gopinath, Indian Institute of Science, India

Haryadi S. Gunawi, University of Chicago

Paolo Ienne, EPFL

Jihong Kim, Seoul National University, Korea

Carlos Maltzahn, University of California, Santa Cruz

Arif Merchant, Google

Sam H. Noh, Hongik University, Korea

Alma Riska, Netapp

Steven Swanson, University of California, San Diego

Nisha Talagala, Fusion IO

Bhuvan Uргаonkar, The Pennsylvania State University

Luis Useche, VMware

Chuliang Weng, Huawei Shannon Lab

Overview

The goal of INFLOW '14 is to bring together researchers and practitioners working in systems, across the hardware/software stack, who are interested in the cross-cutting issues of NVM/Flash technologies, operating systems, and emerging workloads.

In recent years, NVM based storage devices have been gaining popularity as a medium of storage. Flash-based SSDs in particular have had a widespread adoption by the industry driven by the need for greater storage performance. NVM storage devices have dramatically different properties than conventional hard disks. Yet most of these devices are still exposed to operating systems as block-level devices similar to hard disks. There are still several fundamental research issues to be explored on how to efficiently interface with NVM and Flash-based storage devices, as well as the implications of such devices in large-scale workload deployments and on emerging workloads such as analytics applications.

The INFLOW '14 Workshop is an attempt to bring together top researchers from around the world to exchange ideas and discuss recent innovations related to NVM/Flash technologies and their interactions with operating systems and workloads in the context of current enterprises and consumer markets.

Topics

We invite research papers from all areas of Flash SSD and its interactions with operating systems and workloads. Major areas of interest include, but are not limited to:

- Operating systems support for Flash and other NVM technologies
- New file system/storage software design ideas to support Flash
- Virtualization trends for SSD storage
- Flash SSD and NVM in cloud computing
- Applications on NVM/Flash, mobile devices, wearable computing devices, etc.
- Application/OS optimizations tailored for Flash storage unique properties
- Application/OS optimizations for other NVM technologies
- Emerging workloads (BigData, analytics, social, etc.) for Flash/ NVM
- Workload characterization for NVM/Flash devices
- SSD caching techniques
- Acceleration techniques for Flash storage and NVM technologies
- Hybrid SSD technologies

Submission Guidelines

Submitted papers must be no longer than eight 8.5" x 11" pages, based on the standard USENIX format. References do not count towards the eight-page limit. Specifically, your paper should be typeset in two-column format in 10-point type on 12-point (single-spaced) leading, with a text block no more than 6.5" wide by 9" deep. Papers must be submitted via the Web submission form on the Call for Papers Web site, (<https://www.usenix.org/conference/inflow14/call-for-papers>).

Paper submissions must be submitted in a form suitable for anonymous review: no author names or affiliations may appear on the title page, and authors should avoid revealing their identities in the text. When referring to your previous work, do so in the third person, as though it were written by someone else. Only blind the reference itself in the (unusual) case that a third-person reference is infeasible. Contact the program co-chairs at inflow14chairs@usenix.org if you have any questions.

Papers that do not comply with the submission requirements, including length and anonymity, may be rejected without review.

All accepted papers will be available online to registered attendees before the workshop. If your paper should not be published prior to the event, please notify production@usenix.org. The papers will be available online to everyone beginning on the day of the workshop, October 5, 2014.

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 for details. Note, however, that we expect that many papers accepted for INFLOW '14 will eventually be extended as full papers suitable for presentation at future conferences. Questions? Contact your program co-chairs, inflow14chairs@usenix.org, or the USENIX office, submissionspolicy@usenix.org.

Papers accompanied by nondisclosure agreement forms will not be considered. Accepted submissions will be treated as confidential prior to publication on the USENIX INFLOW '14 Web site; rejected submissions will be permanently treated as confidential.

