INFLOW '16: 4th Workshop on Interactions of NVM/Flash with Operating Systems and Workloads

November 1, 2016 • Savannah, GA

Sponsored by USENIX, the Advanced Computing Systems Association

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The 4th Workshop on Interactions of NVM/Flash with Operating Systems and Workloads (INFLOW '16) will be co-located with the 12th USENIX Symposium on Operating Systems Design and Implementation (OSDI '16) and take place on November 1, 2016 in Savannah, GA.

Important Dates

- Full paper submissions due: **Monday, August 15, 2016, 11:59 pm PDT**
- Notification of acceptance: **Friday, September 16, 2016**
- Final paper files due: **Friday, September 30, 2016**

Workshop Organizers

Program Co-Chairs

Peter Desnoyers, *Northeastern University*
Kaoutar El Maghraoui, *IBM T. J. Watson Research Center*

Program Committee

Irfan Ahmad, *CloudPhysics*
Jalil Boukhobza, *Université de Bretagne Occidentale*
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Overview

The goal of INFLOW '16 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, non-volatile memory (NVM) and in particular Flash-based storage devices have seen widespread adoption, for the most part due to demands for storage performance; in turn solid-state storage has been a key driver in development of new and higher-speed storage interfaces such as SATA Express and NVM Express. Yet these devices are almost always used with software architectures at the block device and file system level that were developed decades ago for high-latency and lower-speed disk media.

There are still fundamental research issues to be explored on how to efficiently interface applications to NVM- and Flash-based storage devices, and the implications of such devices for large scale workload deployments and on emerging workloads.The INFLOW Workshop is an attempt to bring top researchers across 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 as well as consumer markets.

Topics

We invite research papers (up to five (5) pages, excluding references) from all areas of Flash, SSDs, other NVM technologies, and interactions of solid-state storage with operating systems and workloads. Major areas of interests include, but are not limited to:

- Operating systems support for Flash and newer NVM technologies
- New filesystem / storage software design ideas to support NVM/Flash
- Virtualization trends for SSD storage
- Flash SSD and NVM in Cloud Computing
- Applications of NVM/Flash to mobile devices and IoT
- Application/OS optimizations for Flash or other NVM properties
- Emerging Workloads (Cognitive, 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 five 8.5" x 11" pages, based on the standard USENIX format. References do not count towards the five-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 INFLOW '16 Web site.

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 inflow16chairs@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, November 1, 2016.

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 (https://www.usenix.org/conferences/submissions-policy) for details. Note, however, that we expect that many papers accepted for INFLOW '16 will eventually be extended as full papers suitable for presentation at future conferences. Questions? Contact your program co-chairs, inflow16chairs@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 '16 Web site; rejected submissions will be permanently treated as confidential.