FAST ’17: 15th USENIX Conference on File and Storage Technologies

February 27–March 2, 2017 • Santa Clara, CA

Sponsored by USENIX, the Advanced Computing Systems Association

Important Dates
• Paper submissions due: Tuesday, September 27, 2016, 9:00 p.m. PDT
• Tutorial submissions due: Tuesday, September 27, 2016, 9:00 p.m. PDT
• Notification to authors: Monday, December 12, 2016
• Final paper files due: Tuesday, January 31, 2017

Conference Organizers

Program Co-Chairs
Geoff Kuenning, Harvey Mudd College
Carl Waldspurger, CloudPhysics

Program Committee
TBA

Steering Committee
Remzi Arpaci-Dusseau, University of Wisconsin—Madison
William J. Bolosky, Microsoft Research
Angela Demke Brown, University of Toronto
Greg Ganger, Carnegie Mellon University
Garth Gibson, Carnegie Mellon University and Panasas, Inc.
Casey Henderson, USENIX Association
Kimberly Keeton, HP Labs
Florentina Popovici, Google
Erik Riedel, EMC
Jiri Schindler, SimpliVity
Bianca Schroeder, University of Toronto
Margo Seltzer, Harvard University and Oracle
Keith A. Smith, NetApp
Eno Thereska, Confluent and Imperial College London
Ric Wheeler, Red Hat
Erez Zadok, Stony Brook University
Yuanyuan Zhou, University of California, San Diego

Overview
The 15th USENIX Conference on File and Storage Technologies (FAST ’17) brings together storage-system researchers and practitioners to explore new directions in the design, implementation, evaluation, and deployment of storage systems. The program committee will interpret "storage systems" broadly; everything from low-level storage devices to information management is of interest. The conference will consist of technical presentations including refereed papers, Work-in-Progress (WiP) reports, poster sessions, and tutorials.

Topics
Topics of interest include but are not limited to:
• Archival storage systems
• Auditing and provenance
• Caching, replication, and consistency
• Cloud storage
• Data deduplication
• Database storage
• Distributed storage (wide-area, grid, peer-to-peer)
• Empirical evaluation of storage systems
• Experience with deployed systems
• File system design
• High-performance file systems
• Key-value and NoSQL storage
• Memory-only storage systems
• Mobile, personal, and home storage
• Parallel I/O and storage systems
• Power-aware storage architectures
• RAID and erasure coding
• Reliability, availability, and disaster tolerance
• Search and data retrieval
• Solid state storage technologies and uses (e.g., flash, byte-addressable NVM)
• Storage management
• Storage networking
• Storage performance and QoS
• Storage security
• The challenges of big data and data sciences

New in 2017! Deployed Systems
In addition to papers that describe original research, FAST ’17 also solicits papers that describe large-scale, operational systems. Such papers should address experience with the practical design, implementation, analysis, or deployment of such systems. We encourage submission of papers that disprove or strengthen existing assumptions, deepen the understanding of existing problems, and validate known techniques at scales or in environ-
ments in which they were never before used or tested. Deployed-system papers need not present new ideas or results to be accepted, but should offer useful guidance to practitioners.

Authors should indicate on the title page of the paper and in the submission form that they are submitting a deployed-system paper.

Submission Instructions
Please submit full and short paper submissions (no extended abstracts) by 9:00 p.m. PDT on September 27, 2016, in PDF format via the Web submission form on the FAST ’17 Web site, www.usenix.org/fast17/cfp. Do not email submissions.

• The complete submission must be no longer than 12 pages for full papers and 6 pages for short papers, excluding references. The program committee will value conciseness, so if an idea can be expressed in fewer pages than the limit, please so. Supplemental material may be appended to the paper without limit; however the reviewers are not required to read such material or consider it in making their decision. Any material that should be considered to properly judge the paper for acceptance or rejection is not supplemental and will apply to the page limit. Papers should be typeset on U.S. letter-sized pages in two-column format in 10-point Times Roman type on 12-point leading (single-spaced), with the text block being no more than 6.5” wide by 9” deep. Labels, captions, and other text in figures, graphs, and tables must use reasonable font sizes that, as printed, do not require extra magnification to be legible. Because references do not count against the page limit, they should not be set in a smaller font. Submissions that violate any of these restrictions will not be reviewed. The limits will be interpreted strictly. No extensions will be given for reformatting.

• Templates and sample first pages (two-column format) for Microsoft Word and LaTeX are available on the USENIX templates page, www.usenix.org/templates-conference-papers.

• Authors must not be identified in the submissions, either explicitly or by implication. When it is necessary to cite your own work, cite it as if it were written by a third party. Do not say “reference removed for blind review.” Any supplemental material must also be anonymized.

• 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 for details.

• If you are uncertain whether your submission meets USENIX’s guidelines, please contact the program co-chairs, fast17chairs@usenix.org, or the USENIX office, submissionspolicy@usenix.org.

• Papers accompanied by nondisclosure agreement forms will not be considered.

Short papers present a complete and evaluated idea that does not need 12 pages to be appreciated. Short papers are not workshop papers or work-in-progress papers. The idea in a short paper needs to be formulated concisely and evaluated, and conclusions need to be drawn from it, just like in a full-length paper.

The program committee and external reviewers will judge papers on technical merit, significance, relevance, and presentation. A good research paper will demonstrate that the authors:

• are attacking a significant problem,
• have devised an interesting, compelling solution,
• have demonstrated the practicality and benefits of the solution,
• have drawn appropriate conclusions using sound experimental methods,
• have clearly described what they have done, and
• have clearly articulated the advances beyond previous work.

A good deployed-system paper will demonstrate that the authors:

• are describing an operational system that is of wide interest,
• have addressed the practicality of the system in more than one real-world environment, especially at large scale,
• have clearly explained the implementation of the system,
• have discussed practical problems encountered in production, and
• have carefully evaluated the system with good statistical techniques.

Moreover, program committee members, USENIX, and the reading community generally value a paper more highly if it clearly defines and is accompanied by assets not previously available. These assets may include traces, original data, source code, or tools developed as part of the submitted work.

Blind reviewing of all papers will be done by the program committee, assisted by outside referees when necessary. Each accepted paper will be shepherded through an editorial review process by a member of the program committee.

Authors will be notified of paper acceptance or rejection no later than Tuesday, January 31, 2017. If your accepted 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 first day of the main conference, February 28, 2017. Accepted submissions will be treated as confidential prior to publication on the USENIX FAST ’17 Web site; rejected submissions will be permanently treated as confidential.

By submitting a paper, you agree that at least one of the authors will attend the conference to present it. If the conference registration fee will pose a hardship for the presenter of the accepted paper, please contact conference@usenix.org.

If you need a bigger testbed for the work that you will submit to FAST ’17, see PRObE at www.nmc-probe.org.

Best Paper Awards
Awards will be given for the best paper(s) at the conference. A small, selected set of papers will be forwarded for publication in ACM Transactions on Storage (TOS) via a fast-path editorial process. Both full and short papers will be considered.

Test of Time Award
We will award a FAST paper from a conference at least 10 years earlier with the “Test of Time” award in recognition of its lasting impact on the field.

Work-in-Progress Reports and Poster Sessions
The FAST technical sessions will include a slot for short Work-in-Progress (WiP) reports presenting preliminary results and opinion statements. We are particularly interested in presentations of student work and topics that will provoke informative debate. While WiP proposals will be evaluated for appropriateness, they are not peer reviewed in the same sense that papers are. We will also hold poster sessions each evening. WiP submissions will automatically be considered for a poster slot, and authors of all accepted full papers will be asked to present a poster on their paper. Other poster submissions are very welcome. Please see the Call for Posters and WiPs, which will be available soon, for submission information.

Birds-of-a-Feather Sessions
Birds-of-a-Feather sessions (BoFs) are informal gatherings held in the evenings and organized by attendees interested in a particular topic. BoFs may be scheduled in advance by emailing the Conference Department at bofs@usenix.org. BoFs may also be scheduled at the conference.

Tutorial Sessions
Tutorial sessions will be held on February 27, 2017. Please submit tutorial proposals to fasttutorials@usenix.org by 9:00 p.m. PDT on September 27, 2016.

Registration Materials
Complete program and registration information will be available in December 2016 on the conference Web site.