Sixth Workshop on Hot Topics in System Dependability (HotDep '10)

Sponsored by USENIX, the Advanced Computing Systems Association

http://www.usenix.org/hotdep10

October 3, 2010   **Vancouver, BC, Canada**

HotDep '10 will be co-located with the 9th USENIX Symposium on Operating Systems Design and Implementation (OSDI '10), which will take place October 4–6, 2010.

Important Dates

Paper submissions due: *May 28, 2010, 11:59 p.m. HAST*
Notification of acceptance: *July 19, 2010*
Final papers due: *September 7, 2010*

Workshop Organizers

Program Co-Chairs

Paulo Verissimo, *University of Lisbon, PT*
Hakim Weatherspoon, *Cornell University, US*

Program Committee

Roberto Baldoni, *University of Rome "La Sapienza," IT*
Byung-Gon Chun, *Intel Research, US*
Indranil Gupta, *University of Illinois at Urbana-Champaign, US*
Andreas Haeberlen, *University of Pennsylvania, US*
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Rüdiger Kapitza, *University of Erlangen-Nuremberg, DE*
Idit Keidar, *Technion—Israel Institute of Technology, IL*
Keith Marzullo, *University of California, San Diego, US*
Gilles Muller, *INRIA/LIP6, FR*
Venugopalan Ramasubramanian (Rama), *Microsoft Research, US*
Aad van Moorsel, *Newcastle University, UK*

Overview

Authors are invited to submit position papers to the Sixth Workshop on Hot Topics in System Dependability (HotDep '10).

HotDep has been alternating between DSN and OSDI and has been instrumental in bringing together the two communities, especially those researchers concerned with dependability and security of systems and networks. This year the workshop will be co-located with the 9th USENIX Symposium on Operating Systems Design and Implementation (OSDI '10), to be held October 4–6, 2010. For the previous HotDep Workshops, see http://www.hotdep.org.

The goal of HotDep '10 is to bring forth cutting-edge research ideas spanning the domains of fault tolerance/reliability and systems and to impact the two associated research communities (i.e., researchers who attend traditional "dependability" conferences such as DSN and ISSRE and those who attend "systems" conferences such as OSDI, SOSP, and EuroSys) by building linkages between them and sharing ideas and challenges. HotDep will center on critical components of the infrastructures touching our everyday lives: operating systems, networking, security, wide-area and enterprise-scale distributed systems, mobile computing, compilers, and language design. We seek participation and contributions from both academic researchers and industry

practitioners, to achieve a mix of long-range research vision and technology ideas anchored in immediate reality.

Position papers of a maximum length of 5 pages should preferably fall into one of the following categories:

- Describes new techniques, algorithms, or protocols for building dependable and/or secure systems that represent advances over prior options or might open new directions meriting further study
- Revisits old open problems in the domain using novel approaches that yield demonstrable benefits
- Debunks an old, entrenched perspective on dependability
- Articulates a brand-new perspective on existing problems in dependability
- Describes an emerging problem (and, possibly, a solution) that must be addressed by the dependable-systems research community

The program committee will favor papers that are likely to generate healthy debate at the workshop and those that are supported by some form of experimental validation, including but not limited to implementations and experiments. We recognize that many ideas will not be 100% fleshed out and/or entirely backed up by quantitative measurements, but papers that lack credible motivation and at least some evidence of feasibility will have little chance of being accepted.

Topics

Possible topics include but are not limited to:

- Automated failure prevention, e.g., fault and intrusion tolerance mechanisms, self-healing mechanisms that allow systems to endure continued threats, and mechanisms that enable systems to adapt on the fly to environment changes or exceptional conditions
- Techniques for better detection, diagnosis, or recovery from failures
- Forensic tools for use by administrators and programmers after a failure or attack
- Techniques and metrics for quantifying aspects of dependability and security in specific domains (e.g., measuring the availability, scalability, responsiveness, or other properties of a Web service)
- Tools/concepts/techniques for optimizing tradeoffs among availability, performance, correctness, and security
- Novel uses of technologies not originally intended for dependability (e.g., using transactional memory to enhance dependability)
- Advances in the automation of management technologies, such as better ways to specify management policy, advances on mechanisms for carrying out policies, or insights into how policies can be combined or validated

Deadline and Submission Instructions

Authors are invited to submit position papers by 11:59 p.m. HAST on May 28, 2010. This is a firm deadline—no extensions will be given.

Submitted position papers must be no longer than 5 8.5" x 11" pages, including figures, tables, and references. Your paper should be typeset in two-column format in 10 point type on 12 point (single-spaced) leading, with the text block being no more than 6.5" wide by 9" deep. Author names and affiliations should appear on the title page.

Papers must be in PDF and must be submitted via the Web submission form on the HotDep '10 Call for Papers Web site, http://www.usenix.org/hotdep10/cfp.

Authors will be notified of acceptance by July 19, 2010. Authors of accepted papers will produce a final PDF by September 7, 2010. 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. The papers will be available online to everyone beginning on the day of the workshop, October 3, 2010.

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 http://www.usenix.org/submissionspolicy. Questions? Contact your program co-chairs, hotdep10chairs@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 HotDep '10 Web site; rejected submissions will be permanently treated as confidential.

Registration Materials

Complete program and registration information will be available on the HotDep '10 Web site in August 2010.