

# 5th Workshop on Hot Topics in Software Upgrades (HotSWUp '13)

Sponsored by USENIX, the Advanced Computing Systems Association

[www.usenix.org/conference/hotswup13](http://www.usenix.org/conference/hotswup13)

June 28, 2013

San Jose, CA

*HotSWUp '13 will take place during USENIX Federated Conferences Week, June 24–28, 2013.*

## Important Dates

Paper submissions due: *March 12, 2013, 9:00 p.m. PDT*

Notification to authors: *April 13, 2013*

Final paper files due: *May 9, 2013*

## Workshop Organizers

### Program Co-Chairs

Cristian Cadar, *Imperial College London*

Jeff Foster, *University of Maryland, College Park*

### Program Committee

TBA

### Steering Committee

Rida Bazzi, *Arizona State University*

Danny Dig, *University of Illinois at Urbana-Champaign*

Tudor Dumitras, *Symantec Research Labs*

Michael Hicks, *University of Maryland, College Park*

Lilian Neamtiu, *University of California, Riverside*

Eli Tilevich, *Virginia Polytechnic Institute and State University*

Michael Wahler, *ABB Corporate Research*

Carlo Zaniolo, *University of California, Los Angeles*

## Overview

Many critical software systems are upgraded regularly to incorporate bug fixes and security patches and to keep up with evolving requirements. However, despite promising recent advances both in academia and industry, upgrades remain failure-prone, difficult to deploy safely, and expensive to develop. The goal of the HotSWUp Workshop is to identify cutting-edge research for supporting software upgrades that are flexible, efficient, robust, and easy to specify and apply.

Solving the software updating problem will require ideas from a wide range of research areas; work on software upgrades has appeared recently in conferences such as ICSE, ICDE, FSE, SIGMOD, OOPSLA, PLDI, SOSP, and OSDI. Thus, HotSWUp co-locates with different venues from year to year. This year, HotSWUp is part of the USENIX Federated Conferences Week, and hopes to actively involve the communities represented at this event. The present workshop aims to build on the successes of HotSWUp '08 (co-located with OOPSLA), HotSWUp '09 (OOPSLA), HotSWUp '11 (ICDE), and HotSWUp '12 (ICSE) where the paper presentations and lively discussions attracted a diverse audience of researchers.

We are interested in papers that address practical as well as theoretical aspects of software upgrades from large scale to embedded applications. Preferably, submissions should fall into one of the following categories:

- Suggest how a successful approach can be applied in a different context (e.g., static dependency analysis applied to distributed-system upgrades)
- Refute an old assumption about software upgrades (e.g., by presenting negative results)
- Describe a new problem or propose a novel solution to an old problem
- Present empirical evidence related to the practical implementation of software upgrades

## Topics

Topics of interest include but are not limited to the following:

- Software engineering/programming language/middleware/operating system support for software upgrades
- Improving the reliability of upgrades (e.g., support for upgrade validation and for rollback after failures)
- Verification methods and tools for software upgrades
- Software upgrades in product lines
- Support for system or data restructuring (e.g., evolving APIs, changes to database schemas)
- Identifying dependencies between components and guaranteeing safe interactions among mixed versions
- Coordinating and disseminating upgrades in large-scale distributed systems
- Software upgrades and the cloud computing Infrastructure
- Tools for preparing, testing, and applying software upgrades
- Software upgrades in the software maintenance process
- Human factors in software upgrades (e.g., usability of upgrading tools, common operator mistakes)

## Submission Instructions

Please submit full papers (no extended abstracts) in PDF format via the Web form on the HotSWUp '13 Call for Papers Web site, [www.usenix.org/conference/hotswup13/call-for-papers](http://www.usenix.org/conference/hotswup13/call-for-papers). Do not email submissions.

- The complete submission must be no longer than five (5) pages. It 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. **Submissions that violate any of these restrictions may not be reviewed.** The limits will be interpreted fairly strictly, and no extensions will be given for reformatting. If you wish, you may use the LaTeX template and style file linked from the Call for Papers Web site.
- There are no formal restrictions on the use of color in graphs or charts, but please use them sparingly—not everybody has access to a color printer.

- The names of authors and their affiliations should be included on the first page of the submission.
- 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. Papers accompanied by nondisclosure agreement forms will not be considered. If you are uncertain whether your submission meets USENIX's guidelines, please contact the program co-chairs, [hotswup13chairs@usenix.org](mailto:hotswup13chairs@usenix.org), or the USENIX office, [submissionspolicy@usenix.org](mailto:submissionspolicy@usenix.org).

Reviewing of full papers will be done by the program committee, assisted by outside referees. Accepted papers will be shepherded through an editorial review process by a member of the program committee.

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 June 28, 2013. Accepted submissions will be treated as confidential prior to publication on the USENIX HotSWUp '13 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 workshop to present it. If the workshop registration will pose a hardship for the presenter of the accepted paper, please contact [conference@usenix.org](mailto:conference@usenix.org).

