

SIGOPS Annual Report 2011

Fiscal Year July 2011-June 2012

Submitted by Jeanna Matthews, SIGOPS Chair

Overview

SIGOPS is a vibrant community of people with interests in “operating systems” in the broadest sense, including topics such as distributed computing, storage systems, security, concurrency, middleware, mobility, virtualization, networking, cloud computing, datacenter software, and Internet services. We sponsor a number of top conferences, provide travel grants to students, present yearly awards, disseminate information to members electronically, and collaborate with other SIGs on important programs for computing professionals.

Notable activities from the past year include:

- New officers began their two-year terms in July 2011 (Jeanna Matthews as Chair, George Candea as Vice Chair, and Dilma da Silva as Treasurer). The past officers (Doug Terry as Chair, Frank Bellosa as Vice Chair and Jeanna Matthews as Treasurer) completed their 4 years of service on June 30. Muli Ben-Yehuda accepted the position of SIGOPS Information Director, taking over for Stefan Saroiu who served for 4 years.
- Planning for the next *ACM Symposium on Operating Systems (SOSP)*, which is scheduled for November 3-6 2013 in Farmington, Pennsylvania, are well underway. Michael Kaminsky (Intel) is serving as the General Chair, and Michael Dahlin (University of Texas) is serving as the Program Chair.
- The second *SIGOPS Asia-Pacific Workshop on Systems (APSys)* was held on July 11-12 2011 in Shanghai, China and the third instance of this workshop is being held in Seoul, South Korea, in July 2012.
- The first *ASPLOS Influential Paper Award* was awarded at ASPLOS 2011. This award is sponsored in cooperation with SIGARCH and SIGPLAN.
- SIGOPS has been actively involved in lobbying for changes to the ACM copyright policies. Yannis Ioannidis (SIGMOD) and Jeanna Matthews (SIGOPS) attended the ACM Publications Board meeting in June 2012 proposing that authors retain copyright and grant to ACM a non-exclusive license to publish. A number of people influential in the SIGOPS community provided detailed input into the process including John Wilkes, Tom Anderson, Frans Kaashoek and Mike Freedman.
- SIGOPS has made progress on a list of guidelines for approving requests for in-cooperation status.

Awards

SIGOPS presents several awards on a yearly basis.

Miguel Castro received the Mark Weiser Award at SOSP 2011 for creativity and innovation in operating systems research.

The 2011 Edsger W. Dijkstra Prize in Distributed Computing, co-sponsored by SIGOPS, was awarded to Hagit Attiya, Amotz Bar-Noy, and Danny Dolev for their paper “Sharing Memory Robustly in Message-Passing Systems” in *Journal of the ACM (JACM)* 42(1):124-142 (1995).

Starting in 2011, ASPLOS began awarding an “Influential Paper Award,” modeled after a similar award presented at ISCA. The ASPLOS Influential Paper Award can be awarded to any paper published in ASPLOS conferences ten or more conferences prior to the conference in which the award is being made. The first ASPLOS Influential Paper Award was made to the paper “The 801 Minicomputer,” by George Radin, which appeared in the first ASPLOS conference in 1982.

The 2011 SIGOPS Hall of Fame Awards, which recognize the most influential systems papers, were presented at SOSP 2011 for the following papers:

- Jim Gray. [Why Do Computers Stop And What Can Be Done About It?](#) HP Labs Technical Report TR-85.7.
- Ken Thompson. [Reflections on Trusting Trust.](#) *Communications of the ACM*, Volume 27 Issue 8, Aug 1984.
- Jack B. Dennis, Earl C. Van Horn. [Programming Semantics for Multiprogrammed Computations.](#) *Communications of the ACM*, Volume 9 Issue 3, March 1966.
- David A. Patterson, Garth Gibson, Randy H. Katz. [A Case for Redundant Arrays of Inexpensive Disks \(RAID\).](#) *Proceedings of the 1988 ACM SIGMOD International Conference on Management of Data.*

Programs and Services

Professional SIGOPS membership dues remain at \$15, and student membership is just \$5 per year. We offer a “member plus” package (for \$20) for those who wish to receive proceedings for the ASPLOS, Eurosys, and SOSP conferences. For the “member plus” package proceedings will be sent in the format produced for the conference itself. As conferences move away from printed proceedings altogether, printed proceedings may no longer be produced exclusively for the “member plus” recipients. This package is deliberately priced at lower than the cost of a single printed proceedings to allow for this evolution. If or when all three of the conferences in the “member plus” package choose not to produce printed proceedings, we will discontinue this option entirely. ACM is experimenting with a print-on-demand option for proceedings (approximately \$75 per proceedings depending on length).

Several widely respected conferences were sponsored or co-sponsored by SIGOPS this year. This includes the *EuroSys Conference* (with our European SIGOPS Chapter), the *International Conference on Architectural Support for Programming Languages and Operating Systems* (ASPLOS), co-sponsored with

SIGARCH and SIGPLAN, the *Symposium on Principles of Distributed Computing* (PODC), co-sponsored with SIGACT, the *International Conference on Embedded Networked Sensor Systems* (SenSys), co-sponsored with SIGARCH, SIGBED, SIGCOMM, SIGMETRICS and SIGMOBILE, the *International Conference on Virtual Execution Environments* (VEE), co-sponsored with SIGPLAN, the *International Conference on Mobile Systems, Applications, and Services* (MobiSys), co-sponsored with SIGMOBILE, and the new *Symposium on Cloud Computing* (SOCC), co-sponsored with SIGMOD and collocated with SOSP. Additionally, the *Asia-Pacific Workshop on Systems* (APSys) has become a yearly event with the long-term goal of highlighting and supporting systems research in the Asia-Pacific region.

SIGOPS encourages participation in conferences and career building activities for young members of the community. For example, substantial funding was provided this year as travel grants for students to attend conferences and diversity workshops, with many of these grants targeted at women and underrepresented minorities.

SIGOPS also publishes a quarterly newsletter, *Operating Systems Review*, which focuses on specific research topics or research institutions, manages an electronic mailing list, which is used for announcements, and maintains a web site: <http://www.sigops.org/>. Thomas Bressoud joined Jeanna Matthews as a co-editor of OSR in 2011. He had been serving as associate editor since 2008. John Chandy, Ashvin Goel and Antônio Augusto Fröhlich continue to serve on the OSR Individual Submission Committee with John Chandy as chair.

Key Issues

SIGOPS is actively considering whether to continue producing printed proceedings and distributing the OSR newsletter in printed form. Strong arguments can be made for going completely “green”, i.e. paperless. SOSP 2011 had no printed proceedings, but did have a CD with proceedings. However, papers were still produced in two formats to support both the printed proceedings package and the digital versions. We suspect that SOSP 2013 will be the first SIGOPS sponsored venue to have purely online proceedings.

SIGOPS is focusing on increasing its membership in parts of the world beyond the U. S. and Europe. The establishment of the APSys workshop was one important step in this direction. Another potential step is the creation of new chapters, following the success of the SIGOPS European Chapter (EuroSys). However, questions remain to be sorted out concerning the scope of new chapters e.g. what financial arrangements should exist between local chapters and SIGOPS.

During the SIGOPS Business Meeting at SOSP 2011, we discussed the ACM Copyright model. A vote at that meeting indicated strong desire for authors to retain copyright. This was a definite escalation of sentiment since the 2009 Business Meeting where members wanted to see ACM be more willing to grant exceptions – e.g. allowing authors to distribute their papers along with releases of open source software. In response to this growing discontent with the ACM copyright model among SIGOPS members, some of the SIGOPS officers and prominent SIGOPS members have been lobbying ACM to change their copyright model. John Wilkes, Tom Anderson, Frans Kaashoek and Mike Freedman

provided input to Bernard Rous, ACM Director of Publications. Jeanna Matthews (SIGOPS) and Yannis Ioannidis (SIGMOD) were invited to attend the ACM Publications Board meeting in June 2012 for a detailed discussion of these issues. Based on this discussion, the Pubs Board will be making recommendations for change to the ACM SIG Governance Board in October. They are expected to recommend a change to an exclusive license vs. copyright model and that in addition they will offer options for SIGs and/or authors to make their papers open access. SIGOPS is concerned that the changes will not go far enough and made it clear that changing from copyright transfer to an exclusive license model does not truly address the concerns being raised, but are hopeful that SIG and author options for making papers open access might be a step in the right direction. We are anxious to see the detailed proposals including specific cost models for these SIG and author options.