

Symposium Program

Monday, October 4

8:30 a.m.—9:00 a.m.

Monday

Opening Remarks and Jay Lepreau Best Paper Award

OSDI '10 Program Co-Chairs: Remzi Arpaci-Dusseau, *University of Wisconsin, Madison*; Brad Chen, *Google, Inc.*

9:00 a.m.—10:30 a.m.

Monday

Kernels: Past, Present, and Future

Scaling Applications to Many Cores on Linux

S. Boyd-Wickizer, A.T. Clements, Y. Mao, A. Pesterev, M.F. Kaashoek, R.T. Morris, and N. Zeldovich, *MIT CSAIL*

Trust and Protection in the Illinois Browser Operating System

Shuo Tang, Haohui Mai, and Samuel T. King, *University of Illinois at Urbana-Champaign*

FlexSC: Flexible System Call Scheduling with Asynchronous, Exception-Less System Calls

Livio Soares and Michael Stumm, *University of Toronto*

10:30 a.m.—11:00 a.m.

Break

11:00 a.m.—12:30 p.m.

Monday

Inside the Data Center, 1

Finding a Needle in Haystack: Facebook's Photo Storage

Doug Beaver, Sanjeev Kumar, Harry C. Li, Jason Sobel, and Peter Vajgel, *Facebook Inc.*

Availability in Globally Distributed Storage Systems

Daniel Ford, François Labelle, Florentina Popovici, Murray Stokely, Van-Anh Truong, Luiz Barroso, Carrie Grimes, and Sean Quinlan, *Google, Inc.*

Nectar: Automatic Management of Data and Computation in Data Centers

Pradeep Kumar Gunda, Lenin Ravindranath, Chandramohan A. Thekkath, Yuan Yu, and Li Zhuang, *Microsoft Research Silicon Valley*

12:30 p.m.—2:00 p.m.

Symposium Luncheon

2:00 p.m.—3:30 p.m.

Monday

Security Technologies

System Recovery Using Selective Re-execution

Taesoo Kim, Xi Wang, Nikolai Zeldovich, and M. Frans Kaashoek, *MIT CSAIL*

Static Checking of Dynamically-Varying Security Policies in Database-Backed Applications

Adam Chlipala, *Impredicative LLC*

Accountable Virtual Machines

Andreas Haeberlen, *University of Pennsylvania*; Paarijaat Aditya, Rodrigo Rodrigues, and Peter Druschel, *Max Planck Institute for Software Systems (MPI-SWS)*

3:30 p.m.—4:00 p.m. Break

4:00 p.m.—5:30 p.m.

Monday

Concurrency Bugs

Bypassing Races in Live Applications with Execution Filters

Jingyue Wu, Heming Cui, and Junfeng Yang, *Columbia University*

Effective Data-Race Detection for the Kernel (and Beyond)

John Erickson, Madanlal Musuvathi, Sebastian Burckhardt, and Kirk Olynyk, *Microsoft Research*

Ad Hoc Synchronization Considered Harmful

Weimei Xiong, *University of Illinois at Urbana-Champaign*; Soyeon Park, Jiaqi Zhang, and Yuanyan Zhou, *University of California, San Diego*; Zhiqiang Ma, Matthew Frank, Bob Kuhn, and Paul Petersen, *Intel*

6:00 p.m.—7:30 p.m.

Poster Session & Happy Hour

7:30 p.m.—9:00 p.m.

Research Vision Session

Tuesday, October 5

9:00 a.m.—10:30 a.m.

Tuesday

Deterministic Parallelism

Deterministic Process Groups in dOS

Tom Bergan, Nicholas Hunt, Luis Ceze, and Steven D. Gribble, *University of Washington*

Efficient System-Enforced Deterministic Parallelism

Amittai Aviram, Shu-Chun Weng, Sen Hu, and Bryan Ford, *Yale University*

Stable Deterministic Multithreading Through Schedule Memoization

Heming Cui, Jingyue Wu, and Junfeng Yang, *Columbia University*

10:30 a.m.—11:00 a.m.

Break

11:00 a.m.—Noon

Tuesday

Systems Management

Enabling Configuration-Independent Automation by Non-Expert Users

Nate Kushman and Dina Katabi, *Massachusetts Institute of Technology*

Automating Configuration Troubleshooting with Dynamic Information Flow Analysis

Mona Attariyan and Jason Flinn, *University of Michigan*

Noon—1:30 p.m.

Symposium Luncheon

1:30 p.m.—3:30 p.m.

Tuesday

Inside the Data Center, 2

Incremental Processing of Large Data Sets

Daniel Peng and Frank Dabek, *Google, Inc.*

Reining in the Outliers in Map-Reduce Clusters

Ganesh Ananthanarayanan, *Microsoft and UC Berkeley*; Srikanth Kandula and Albert Greenberg, *Microsoft*; Ion Stoica, *UC Berkeley*; Yi Lu, *Microsoft*; Bikas Saha, *Microsoft Bing*

Transactional Consistency and Automatic Management in an Application Data Cache

Dan R.K. Ports, Austin T. Clements, Irene Zhang, Samuel Madden, and Barbara Liskov, *MIT CSAIL*

Piccolo: Building Fast, Distributed Programs with Partitioned Tables

Russell Power and Jinyang Li, *New York University*

3:30 p.m.—4:00 p.m.

Break

4:00 p.m.—5:30 p.m.

Tuesday

Cloud Storage

Depot: Cloud Storage with Minimal Trust

P. Mahajan, S. Setty, S. Lee, A. Seehra, A. Clement, L. Alvisi, M. Dahlin, and M. Walfish, *The University of Texas at Austin*

Comet: An Active Distributed Key-Value Store

Roxana Geambasu, Amit A. Levy, Tadayoshi Kohno, Arvind Krishnamurthy, and Henry M. Levy, *University of Washington*

SPORC: Group Collaboration using Untrusted Cloud Resources

Ariel J. Feldman, William P. Zeller, Michael J. Freedman, and Edward W. Felten, *Princeton University*

6:00 p.m.—7:30 p.m.

Symposium Reception

Wednesday, October 6

9:00 a.m.—10:30 a.m.

Tuesday

Production Networks

Onix: A Distributed Control Platform for Large-scale Production Networks

Teemu Koponen, Martin Casado, Natasha Gude, and Jeremy Stribling, *Nicira Networks*; Leon Poutievski, Min Zhu, and Rajiv Ramanathan, *Google*; Yuichiro Iwata, Hiroaki Inoue, and Takayuki Hama, *NEC*; Scott Shenker, *International Computer Science Institute (ICSI) and UC Berkeley*

Can the Production Network Be the Testbed?

Rob Sherwood, *Deutsche Telekom Inc. R&D Lab*; Glen Gibb, Kok-Kiong Yap, and Guido Appenzeller, *Stanford University*; Martin Casado, *Nicira Networks*; Nick McKeown and Guru Parulkar, *Stanford University*

Building Extensible Networks with Rule-Based Forwarding

Lucian Popa, *University of California, Berkeley*; Norbert Egi, *Lancaster University*; Sylvia Ratnasamy, *Intel Labs, Berkeley*; Ion Stoica, *University of California, Berkeley*

10:30 a.m.—11:00 a.m.

Break

11:00 a.m.—Noon

Wednesday

Mobility

TaintDroid: An Information-Flow Tracking System for Realtime Privacy Monitoring on Smartphones

William Enck, *The Pennsylvania State University*; Peter Gilbert, *Duke University*; Byung-gon Chun, *Intel Labs*; Landon P. Cox, *Duke University*; Jaeyeon Jung, *Intel Labs*; Patrick McDaniel, *The Pennsylvania State University*; Anmol N. Sheth, *Intel Labs*

StarTrack Next Generation: A Scalable Infrastructure for Track-Based Applications

Maya Haridasan, Iqbal Mohamed, Doug Terry, Chandramohan A. Thekkath, and Li Zhang, *Microsoft Research Silicon Valley*

Noon—1:00 p.m.

Lunch (on your own)

1:00 p.m.—2:30 p.m.

Wednesday

Virtualization

The Turtles Project: Design and Implementation of Nested Virtualization

Muli Ben-Yehuda, *IBM Research—Haifa*; Michael D. Day, *IBM Linux Technology Center*; Zvi Dubitzky, Michael Factor, Nadav Har'El, and Abel Gordon, *IBM Research—Haifa*; Anthony Liguori, *IBM Linux Technology Center*; Orit Wasserman and Ben-Ami Yassour, *IBM Research—Haifa*

mClock: Handling Throughput Variability for Hypervisor IO Scheduling

Ajay Gulati, *VMware Inc*; Arif Merchant, *HP Labs*; Peter Varman, *Rice University*

Virtualize Everything but Time

Timothy Broomhead, Laurence Cremean, Julien Ridoux, and Darryl Veitch, *Center for Ultra-Broadband Information Networks (CUBIN), The University of Melbourne*