Dear Colleague,

The 6th Symposium on Operating Systems Design & Implementation (OSDI '04) continues the conference's tradition of presenting the best innovative work in "systems," with a broad interpretation of area. We believe that this year's conference contains some of the most original, intriguing, and important work in the field today—work that you, as a systems practitioner, will find both stimulating and useful.

By coming to this year's OSDI, you will hear from and interact with researchers who are addressing a wide range of important questions. How should we structure a system to tolerate buggy components? Can we manage systems automatically in the presence of malicious attacks, configuration errors, overloaded components, and network outages? What should be the foundations and techniques for building fast, robust, secure, low-power storage systems? How can we find or tolerate bugs in operating systems code? How can we monitor and improve the performance and availability of distributed systems?

In summary, we believe this year's OSDI features an outstanding program giving insightful and useful results taken from the best of current systems software research and practice.

Please join us at the Renaissance Parc 55 Hotel in San Francisco, CA, December 6–8, 2004.

For the OSDI '04 Program Committee,

Eric Brewer, *University of California, Berkeley*
Peter Chen, *University of Michigan, Ann Arbor*
OSDI '04 Program Co-Chairs

Register by November 19 and SAVE!

SYMPOSIUM ORGANIZERS

Program Co-Chairs

Eric Brewer, *University of California, Berkeley*
Peter Chen, *University of Michigan, Ann Arbor*

Program Committee

Miguel Castro, *Microsoft Research*
Jason Flinn, *University of Michigan*
Greg Ganger, *Carnegie Mellon University*
Samuel Madden, *Massachusetts Institute of Technology*
Jeff Mogul, *Hewlett Packard Labs*
Andrew Myers, *Cornell University*
Jason Nieh, *Columbia University*
Timothy Roscoe, *Intel Research*
Mendel Rosenblum, *Stanford University*
Margo Seltzer, *Harvard University*
Geoff Voelker, *University of California, San Diego*
David Wagner, *University of California, Berkeley*
Matt Welsh, *Harvard University*

Steering Committee

David Culler, *University of California, Berkeley*
Peter Druschel, *Rice University*
Mike Jones, *Microsoft Research*

REGISTRATION/HOTEL

Technical Session Registration Fees

Early Bird Rates (Register by November 19, 2004)

Member: $645
Nonmember: $755*
Full-time Student Member: $250
Full-time Student Nonmember: $290*
* Nonmember rates include a one-year USENIX membership.

After November 19, members and nonmembers (not students) add $150 to their technical sessions fee.

Hotel Information

Hotel Reservation Discount Deadline: November 19, 2004

Renaissance Parc 55 Hotel
Rates: $159 single/double

Thanks to Our Sponsors

DoCoMo Communications Laboratories USA, Inc.
DSStar
Grid Today
Hewlett-Packard
HPCWire
Intel
Microsoft Research
SNIA
StorageNetworking.org

http://www.usenix.org/osdi2004

MONDAY, DECEMBER 6

8:45 a.m. – 9:00 a.m. Opening Remarks and Awards

9:00 a.m.–10:30 a.m.

DEPENDABILITY AND RECOVERY

Recovering Device Drivers
Michael M. Swift, Muthukaruppan Annamalai, Brian N. Bershad, and Henry M. Levy, *University of Washington*

Unmodified Device Driver Reuse and Improved System Dependability via Virtual Machines
Joshua LeVasseur, Volkmar Uhlig, Jan Stoess, and Stefan Götz, *University of Karlsruhe, Germany*

Microreboot—A Technique for Cheap Recovery
George Candea, Shinichi Kawamoto, Yuichi Fujiki, Greg Friedman, and Armando Fox, *Stanford University*

11:00 a.m.–12:30 p.m.

AUTOMATED MANAGEMENT I

Automated Worm Fingerprinting
Sumeet Singh, Cristian Estan, George Varghese, and Stefan Savage, *University of California, San Diego*

Understanding and Dealing with Operator Mistakes in Internet Services
Kiran Nagaraja, Fabio Oliveira, Ricardo Bianchini, Richard P. Martin, and Thu D. Nguyen, *Rutgers University*

System Administration as Search: Finding the Needle in the Haystack
Andrew Whitaker, Richard S. Cox, and Steven D. Gribble, *University of Washington*

12:30 p.m. – 2:00 p.m. Symposium Luncheon

2:00 p.m.–3:30 p.m.

FILE AND STORAGE SYSTEMS I

Chain Replication for Supporting High Throughput and Availability
Robbert van Renesse and Fred B. Schneider, *Cornell University*

Boxwood: Abstractions as the Foundations for Storage Infrastructure
John MacCormick, Nick Murphy, Marc Najork, Chandramohan A. Thekkath, and Lidong Zhou, *Microsoft Research*

Secure Untrusted Data Repository (SUNDR)
Jinyuan Li, Maxwell Krohn, David Mazières, and Dennis Shasha, *NYU*

4:00 p.m.–5:30 p.m.

DISTRIBUTED SYSTEMS

MapReduce: Simplified Data Processing on Large Clusters
Jeffrey Dean and Sanjay Ghemawat, *Google, Inc.*

FUSE: Lightweight Guaranteed Distributed Failure Notification
John Dunagan, *Microsoft Research;* Nicholas J. A. Harvey, *MIT Computer Science and Artificial Intelligence Laboratory;* Michael B. Jones, *Microsoft Research;* Dejan Kostic, *Duke University;* Marvin Theimer and Alec Wolman, *Microsoft Research*

PlanetSeer: Internet Path Failure Monitoring and Characterization in Wide-Area Services
Ming Zhang, Chi Zhang, Vivek Pai, Larry Peterson, and Randy Wang, *Princeton University*

TUESDAY, DECEMBER 7

9:00 a.m.–10:30 a.m.

NETWORK ARCHITECTURE

Improving the Reliability of Internet Paths with One-hop Source Routing
Krishna P. Gummadi, Harsha V. Madhyastha, Steven D. Gribble, Henry M. Levy, and David Wetherall, *University of Washington*

CoDNS: Improving DNS Performance and Reliability via Cooperative Lookups
KyoungSoo Park, Vivek Pai, Larry Peterson, and Zhe Wang, *Princeton University*

Middleboxes No Longer Considered Harmful
Michael Walfish, Jeremy Stribling, Maxwell Krohn, Hari Balakrishnan, and Robert Morris, *MIT Computer Science and Artificial Intelligence Laboratory;* Scott Shenker, *University of California, Berkeley, and ICSI*

TUESDAY, DECEMBER 7

11:00 a.m.–12:30 p.m.

AUTOMATED MANAGEMENT II

Correlating Instrumentation Data to System States: A Building Block for Automated Diagnosis and Control
Ira Cohen, *Hewlett-Packard Laboratories;* Jeff Chase, *Duke University;* Moises Goldszmidt, Terence Kelly, and Julie Symons, *Hewlett-Packard Laboratories*

Automatic Misconfiguration Troubleshooting with *PeerPressure*
Helen J. Wang, John Platt, Yu Chen, Ruyun Zhang, and Yi-min Wang, *Microsoft Research*

Using Magpie for Request Extraction and Workload Modelling
Paul Barham, Austin Donnelly, Rebecca Isaacs, and Richard Mortier, *Microsoft Research, Cambridge, UK*

12:30 p.m.–2:00 p.m. Lunch (on your own)

2:00 p.m.–3:30 p.m.

BUGS

Using Model Checking to Find Serious File System Errors
Junfeng Yang, Paul Twohey, and Dawson Engler, *Stanford University;* Madanlal Musuvathi, *Microsoft Systems Research*

CP-Miner: A Tool for Finding Copy-paste and Related Bugs in Operating System Code
Zhenmin Li, Shan Lu, Suvda Myagmar, and Yuanyuan Zhou, *University of Illinois, Urbana-Champaign*

Enhancing Server Availability and Security Through Failure-Oblivious Computing
Martin Rinard, Cristian Cadar, Daniel Dumitran, Daniel M. Roy, and William S. Beebee, Jr., *Massachusetts Institute of Technology*

4:00 p.m.–5:30 p.m.

WORK-IN-PROGRESS REPORTS

Short, pithy, and fun, Work-in-Progress reports introduce interesting new or ongoing work. If you have work you would like to share or a cool idea that's not quite ready for publication, send a one- or two-paragraph summary to osdi04wips@usenix.org.

5:30 p.m.–6:30 p.m. Symposium Reception

WEDNESDAY, DECEMBER 8

9:00 a.m.–10:30 a.m.

KERNEL NETWORKING

Deploying Safe User-Level Network Services with icTCP
Haryadi S. Gunawi, Andrea C. Arpaci-Dusseau, and Remzi H. Arpaci-Dusseau, *University of Wisconsin, Madison*

ksniffer: Determining the Remote Client Perceived Response Time from Live Packet Streams
David P. Olshefski, Jason Nieh, and Erich Nahum, *IBM T.J. Watson Research, Columbia University*

FFPF: Fairly Fast Packet Filters
Herbert Bos, *Vrije Universiteit Amsterdam, The Netherlands;* Willem de Bruijn, Mihai Cristea, Trung Nguyen, and Georgios Portokalidis, *Universiteit Leiden, The Netherlands*

11:00 a.m.–12:30 p.m.

FILE AND STORAGE SYSTEMS II

Energy-Efficiency and Storage Flexibility in the Blue File System
Edmund B. Nightingale and Jason Flinn, *University of Michigan*

Life or Death at Block-Level
Muthian Sivathanu, Lakshmi N. Bairavasundaram, Andrea C. Arpaci-Dusseau, and Remzi H. Arpaci-Dusseau, *University of Wisconsin, Madison*

Program Counter Based Pattern Classification in Buffer Caching
Chris Gniady, Ali R. Butt, and Y. Charlie Hu, *Purdue University*

Register by November 19 and save!
http://www.usenix.org/osdi2004