

# Guest Editorial: Special Section on Papers from MobiSys 2009

Jason Flinn and Anthony LaMarca

WE are pleased to present this special section of *Transactions on Mobile Computing*, which contains some of the best work presented at the Seventh Annual International Conference on Mobile Systems, Applications, and Services (MobiSys 2009). MobiSys is the premiere venue for publishing research results at the intersection of mobile computing and software systems. The program committee received 128 submissions and selected 26 of these to appear at the conference held in June 2009 in Krakow, Poland. After the conference, we invited the top few of these papers to submit an extended paper to this special section. The authors revised their papers based on both conference feedback and further research. These papers went through a subsequent round of reviews and modifications, with the final result being the versions included in this section.

Papers at the conference covered a wide breadth of topics, and the papers in this special section reflect that diversity. The first paper, "SPATE: Small-Group PKI-Less Authenticated Trust Establishment," tackles the challenging problem of enabling a group of mobile computers users to establish a trusted relationship *without* the presence of trusted infrastructure. The next paper, "Design, Realization, and Evaluation of xShare for Impromptu Sharing of Mobile Phones," provides a mechanism for a cell phone user to temporarily share his or her phone with other individuals while restricting the available functionality. The paper, "Fidelity-Aware Replication for Mobile Devices," brings together research in the fields of data replication and fidelity adaptation to create a synchronization system that lets each device store data replicas that are best suited to its particular capabilities. The final paper, "WiFi-Reports: Improving Wireless Network Selection with Collaboration," aims to improve WiFi access point selection by providing a collaborative service with good security and privacy properties that allows mobile users to learn about the performance of nearby access points.

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several conferences.

**Jason Flinn** received the PhD degree from Carnegie Mellon University in 2001. He is currently an associate professor in the Computer Science and Engineering Department at the University of Michigan. His research interests include mobile computing, storage systems, operating systems, and distributed systems. He received a US National Science Foundation CAREER award in 2004, and his research papers have received best paper awards from



goal of building high coverage, high accuracy techniques for inferring common contexts.

**Anthony LaMarca** received the BS degree in computer science from the University of California at Berkeley and the MS and PhD degrees in computer science from the University of Washington. He is a principal engineer and the associate director of Intel Labs Seattle. His research interests include location and sensing technologies, ubiquitous computing, and mobile computing. He is currently coleading the Everyday Sensing and Perception project with the

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