

Program

30th IEEE Symposium on Security and Privacy

Sunday, 17 May 2009

4-7pm **Welcome Reception**

Monday, 18 May 2009

8:30-8:45am **Opening**

8:45-10:15am **Session 1: Attacks and Defenses**
Chair: Tadayoshi Kohno (U. Washington)

Wirelessly Pickpocketing a Mifare Classic Card

Flavio D. Garcia, Peter van Rossum, Roel Verdult, Ronny Wicher Schreur (Radboud University Nijmegen)

Plaintext Recovery Attacks Against SSH

Martin R. Albrecht, Kenneth G. Paterson, Gaven J. Watson (Royal Holloway, U. of London)

Exploiting Unix File-System Races via Algorithmic Complexity Attacks

Xiang Cai, Yuwei Gui, Rob Johnson (Stony Brook)

10:30-11:30am **Session 2: Information Security**

Chair: Patrick Traynor (Georgia Tech)

Practical Mitigations for Timing-Based Side-Channel Attacks on Modern x86 Processors

Bart Coppens (Ghent University), Ingrid Verbauwhede (KU Leuven), Bjorn De Sutter, Koen De Bosschere (Ghent U.)

Non-Interference for a Practical DIFC-Based Operating System

Maxwell Krohn (CMU), Eran Tromer (MIT)

11:30am-noon **Special 30th Anniversary Event**

Lunch

1:30pm **Short Talk Abstracts Due**

Session 3: Malicious Code

Chair: Úlfar Erlingsson (Reykjavik U.)

Native Client: A Sandbox for Portable, Untrusted x86 Native Code

Bennet Yee, David Sehr, Gregory Dardyk, Brad Chen, Robert Muth, Tavis Ormandy, Shiki Okasaka, Neha Narula, Nicholas Fullagar (Google)

Automatic Reverse Engineering of Malware Emulators

Monirul Sharif, Andrea Lanzi, Jonathon Giffin, Wenke Lee (Georgia Tech)

Prospex: Protocol Specification Extraction

Paolo Milani Comparetti, Gilbert Wondracek (TU Vienna), Christopher Kruegel (UC Santa Barbara), Engin Kirda (Eurecom)

3:30-5:00pm **Session 4: Information Leaks**

Chair: Radu Sion (Stony Brook University)

Quantifying Information Leaks in Outbound Web Traffic

Kevin Borders (Web Tap Security), Atul Prakash (U. Michigan)

Automatic Discovery and Quantification of Information Leaks

Michael Backes (Saarland University and MPI), Boris Köpf, Andrey Rybalchenko (Max Planck Institute)

CLAMP: Practical Prevention of Large-Scale Data Leaks

Bryan Parno, Jonathan M. McCune, Dan Wendlandt, David G. Andersen, Adrian Perrig (CMU)

6:00-8:00pm **Reception and Poster Session**

Tuesday, 19 May 2009

8:30-10:00am **Session 5: Privacy**

Chair: Kristen Lefevre (University of Michigan)

De-anonymizing Social Networks

Arvind Narayanan, Vitaly Shmatikov (University of Texas, Austin)

Privacy Weaknesses in Biometric Sketches

Koen Simoens (KU Leuven), Pim Tuyls (Intrinsic-ID), Bart Preneel (KU Leuven)

The Mastermind Attack on Genomic Data

Michael T. Goodrich (UC Irvine)

10:30am-noon **Session 6: Formal Foundations**

Chair: Vitaly Shmatikov (University of Texas, Austin)

A Logic of Secure Systems and its Application to Trusted Computing

Anupam Datta, Jason Franklin, Deepak Garg, Dilysun Kaynar (CMU)

Formally Certifying the Security of Digital Signature Schemes

Santiago Zanella-Béguelin (INRIA), Gilles Barthe (IMDEA Software), Benjamin Grégoire (INRIA), Federico Olmedo (Universidad Nacional de Rosario, Argentina)

An Epistemic Approach to Coercion-Resistance for Electronic Voting Protocols

Ralf Kuesters, Tomasz Truderung (University of Trier)

noon-1:30pm **Lunch**

1:30-2:30pm **Session 7: Network Security**

Chair: Jonathon Giffin (Georgia Tech)

Sphinx: A Compact and Provably Secure Mix Format

George Danezis (Microsoft Research), Ian Goldberg (U. Waterloo)

DSybil: Optimal Sybil-Resistance for Recommendation Systems

Haifeng Yu, Chenwei Shi (National University of Singapore), Michael Kaminsky, Phillip B. Gibbons (Intel Research Pittsburgh), Feng Xiao (National University of Singapore)

3:00-4:00pm **Session 8: Physical Security**

Chair: Farinaz Koushanfar (Rice University)

Fingerprinting Blank Paper Using Commodity Scanners

William Clarkson (Princeton), Tim Weyrich (University College London), Adam Finkelstein, Nadia Heninger, Alex Halderman, Ed Felten (Princeton)

Tempest in a Teapot: Compromising Reflections Revisited

Michael Backes (Saarland University and MPI-SWS), Tongbo Chen (Max Planck Institute for Informatics), Markus Duermuth (Saarland University), Hendrik P. A. Lenzsch (Max Planck Institute for Informatics), Martin Welk (Saarland University)

4:15-5:30pm **Short Talks**

Chair: Patrick Traynor (Georgia Tech)

Submit short talk abstracts before 1:30pm Monday, 18 May.
See <http://oakland09.cs.virginia.edu> for details.

5:45-7:00pm **Business Meeting**

Open to all attendees

Wednesday, 20 May 2009

9:00-10:30am **Session 9: Web Security**

Chair: Sam King (U. Illinois, Urbana-Champaign)

Blueprint: Robust Prevention of Cross-site Scripting Attacks for Existing Browsers

Mike Ter Louw, V.N. Venkatakrishnan (U. Illinois at Chicago)

Pretty-Bad-Proxy: An Overlooked Adversary in Browsers' HTTPS Deployments

Shuo Chen (Microsoft Research), Ziqing Mao (Purdue), Yi-Min Wang, Ming Zhang (Microsoft Research)

Secure Content Sniffing for Web Browsers, or How to Stop Papers from Reviewing Themselves

Adam Barth (UC Berkeley), Juan Caballero (CMU and UC Berkeley), Dawn Song (UC Berkeley)

11:00am-noon **Session 10: Humans and Secrets**

Chair: Michael Backes (Saarland U. and MPI-SWS)

It's No Secret. Measuring the Security and Reliability of Authentication via 'Secret' Questions

Stuart Schechter, A. J. Bernheim Brush (Microsoft Research), Serge Egelman (CMU)

Password Cracking Using Probabilistic Context-Free Grammars

Matt Weir, Sudhir Aggarwal, Bill Glodek, Breno de Medeiros (Florida State University)

noon-12:15pm **Symposium Closing**

1:00-5:00 **Tutorials (registration required)**

A Quick Intro to Trusted Hardware

Radu Sion (Stony Brook University)

Models and Methods for Disclosure Limitation

Johannes Gehrke (Cornell) and Ashwin Machanavajjhala (Yahoo!)

Thursday, 21 May 2009: Workshops

Fourth International IEEE Workshop on Systematic Approaches to Digital Forensic Engineering

Rob Erbacher (Utah State), Matt Bishop and Sean Peisert (UC Davis)

Web 2.0 Security and Privacy 2009

Larry Koved (IBM Research), Dan S. Wallach (Rice University), and Adam Barth (UC Berkeley)



<http://oakland09.cs.virginia.edu>