24th USENIX Security Symposium August 12–14, 2015 Washington, D.C.

Message from the Program Chairxi-xii
Wednesday, August 12
Measurement: We Didn't Start the Fire
Post-Mortem of a Zombie: Conficker Cleanup After Six Years
Mo(bile) Money, Mo(bile) Problems: Analysis of Branchless Banking Applications in the Developing World17 Bradley Reaves, Nolen Scaife, Adam Bates, Patrick Traynor, and Kevin R.B. Butler, <i>University of Florida</i>
Measuring the Longitudinal Evolution of the Online Anonymous Marketplace Ecosystem
Now You're Just Something That I Used to Code
Under-Constrained Symbolic Execution: Correctness Checking for Real Code
TaintPipe: Pipelined Symbolic Taint Analysis
Type Casting Verification: Stopping an Emerging Attack Vector
Tic-Attack-Toe
All Your Biases Belong to Us: Breaking RC4 in WPA-TKIP and TLS
Attacks Only Get Better: Password Recovery Attacks Against RC4 in TLS
Eclipse Attacks on Bitcoin's Peer-to-Peer Network
Word Crimes
Compiler-instrumented, Dynamic Secret-Redaction of Legacy Processes for Attacker Deception
Control-Flow Bending: On the Effectiveness of Control-Flow Integrity
Automatic Generation of Data-Oriented Exploits

Sock It To Me: TLS No Less
Protocol State Fuzzing of TLS Implementations
Verified Correctness and Security of OpenSSL HMAC
Not-Quite-So-Broken TLS: Lessons in Re-Engineering a Security Protocol Specification and Implementation
To Pin or Not to Pin—Helping App Developers Bullet Proof Their TLS Connections
Forget Me Not
De-anonymizing Programmers via Code Stylometry
RAPTOR: Routing Attacks on Privacy in Tor
Circuit Fingerprinting Attacks: Passive Deanonymization of Tor Hidden Services
SecGraph: A Uniform and Open-source Evaluation System for Graph Data Anonymization and De-anonymization
Thursday, August 13
Operating System Security: It's All About the Base
Trustworthy Whole-System Provenance for the Linux Kernel
Securing Self-Virtualizing Ethernet Devices
EASEAndroid: Automatic Policy Analysis and Refinement for Security Enhanced Android via Large-Scale Semi-Supervised Learning

Ace Ventura: PETS Detective
Marionette: A Programmable Network Traffic Obfuscation System
CONIKS: Bringing Key Transparency to End Users
Investigating the Computer Security Practices and Needs of Journalists
ORAMorama!
Constants Count: Practical Improvements to Oblivious RAM
Raccoon: Closing Digital Side-Channels through Obfuscated Execution
M2R: Enabling Stronger Privacy in MapReduce Computation
But Maybe All You Need Is Something to Trust
Measuring Real-World Accuracies and Biases in Modeling Password Guessability
Sound-Proof: Usable Two-Factor Authentication Based on Ambient Sound
Android Permissions Remystified: A Field Study on Contextual Integrity
PELCGB
Phasing: Private Set Intersection using Permutation-based Hashing
Faster Secure Computation through Automatic Parallelization
The Pythia PRF Service

And the Hackers Gonna Hack, Hack, Hack, Hack, Hack
EVILCOHORT: Detecting Communities of Malicious Accounts on Online Services
Trends and Lessons from Three Years Fighting Malicious Extensions
Meerkat: Detecting Website Defacements through Image-based Object Recognition
It's a Binary Joke: Either You Get It, or You Don't
Recognizing Functions in Binaries with Neural Networks
Reassembleable Disassembling
How the ELF Ruined Christmas
Friday, August 14
Pain in the App
Finding Unknown Malice in 10 Seconds: Mass Vetting for New Threats at the Google-Play Scale659. Kai Chen, Chinese Academy of Sciences and Indiana University; Peng Wang, Yeonjoon Lee, Xiaofeng Wang, and Nan Zhang, Indiana University; Heqing Huang, The Pennsylvania State University; Wei Zou, Chinese Academy of Sciences; Peng Liu, The Pennsylvania State University
You Shouldn't Collect My Secrets: Thwarting Sensitive Keystroke Leakage in Mobile IME Apps675 Jin Chen and Haibo Chen, Shanghai Jiao Tong University; Erick Bauman and Zhiqiang Lin, The University of Texas at Dallas; Binyu Zang and Haibing Guan, Shanghai Jiao Tong University
Boxify: Full-fledged App Sandboxing for Stock Android
Oh, What a Tangled Web We Weave
Cookies Lack Integrity: Real-World Implications
The Unexpected Dangers of Dynamic JavaScript
ZigZag: Automatically Hardening Web Applications Against Client-side Validation Vulnerabilities73' Michael Weissbacher, William Robertson, and Engin Kirda, <i>Northeastern University;</i> Christopher Kruegel and Giovanni Vigna, <i>University of California, Santa Barbara</i>
(Friday, August 14, continues on next page)

The World's Address: An App That's Worn
Anatomization and Protection of Mobile Apps' Location Privacy Threats
LinkDroid: Reducing Unregulated Aggregation of App Usage Behaviors
PowerSpy: Location Tracking using Mobile Device Power Analysis
ADDioS!
In the Compression Hornet's Nest: A Security Study of Data Compression in Network Services
Bohatei: Flexible and Elastic DDoS Defense
Boxed Out: Blocking Cellular Interconnect Bypass Fraud at the Network Edge
Attacks: I Won't Let You Down
GSMem: Data Exfiltration from Air-Gapped Computers over GSM Frequencies
Thermal Covert Channels on Multi-core Platforms
Rocking Drones with Intentional Sound Noise on Gyroscopic Sensors
How Do You Secure a Cloud and Pin it Down?
Cache Template Attacks: Automating Attacks on Inclusive Last-Level Caches
A Placement Vulnerability Study in Multi-Tenant Public Clouds
A Measurement Study on Co-residence Threat inside the Cloud

Knock Knock. Who's There? Icy. Icy who? I See You Too
Towards Discovering and Understanding Task Hijacking in Android
Cashtags: Protecting the Input and Display of Sensitive Data
SUPOR: Precise and Scalable Sensitive User Input Detection for Android Apps
UIPicker: User-Input Privacy Identification in Mobile Applications
How Do You Solve a Problem Like M-al-ware?
Cloudy with a Chance of Breach: Forecasting Cyber Security Incidents
WebWitness: Investigating, Categorizing, and Mitigating Malware Download Paths
Vulnerability Disclosure in the Age of Social Media: Exploiting Twitter for Predicting Real-World Exploits
Needles in a Haystack: Mining Information from Public Dynamic Analysis Sandboxes for
Malware Intelligence
The Supplement to the Proceedings of the 22nd USENIX Security Symposium follows

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