

Contents

Mobile Security I

AppShield: Enabling Multi-entity Access Control Cross Platforms for Mobile App Management	3
<i>Zhengyang Qu, Guanyu Guo, Zhengyue Shao, Vaibhav Rastogi, Yan Chen, Hao Chen, and Wangjun Hong</i>	
H-Binder: A Hardened Binder Framework on Android Systems	24
<i>Dong Shen, Zhangkai Zhang, Xuhua Ding, Zhoujun Li, and Robert Deng</i>	
Exploiting Android System Services Through Bypassing Service Helpers. . . .	44
<i>Yacong Gu, Yao Cheng, Lingyun Ying, Yemian Lu, Qi Li, and Purui Su</i>	
Secure Keyboards Against Motion Based Keystroke Inference Attack	63
<i>Shaoyong Du, Yue Gao, Jingyu Hua, and Sheng Zhong</i>	

Network Security

Cloud-Based Privacy-Preserving Parking Navigation Through Vehicular Communications	85
<i>Jianbing Ni, Kuan Zhang, Xiaodong Lin, Yong Yu, and Xuemin (Sherman) Shen</i>	
TruSDN: Bootstrapping Trust in Cloud Network Infrastructure	104
<i>Nicolae Paladi and Christian Gehrman</i>	
Key Update at Train Stations: Two-Layer Dynamic Key Update Scheme for Secure Train Communications	125
<i>Sang-Yoon Chang, Shaoying Cai, Hwajeong Seo, and Yih-Chun Hu</i>	
Faulty Node Repair and Dynamically Spawned Black Hole Search	144
<i>Wei Shi, Mengfei Peng, Jean-Pierre Corriveau, and William Lee Croft</i>	

Applied Cryptography

Attribute-Based Encryption with Granular Revocation	165
<i>Hui Cui, Robert H. Deng, Xuhua Ding, and Yingjiu Li</i>	
Tokenisation Blacklisting Using Linkable Group Signatures	182
<i>Assad Umar, Iakovos Gurulian, Keith Mayes, and Konstantinos Markantonakis</i>	

Privacy-Preserving Multi-pattern Matching	199
<i>Tao Zhang, Xiuhua Wang, and Sherman S.M. Chow</i>	

Parallel and Dynamic Structured Encryption	219
<i>Russell W.F. Lai and Sherman S.M. Chow</i>	

ATCS Workshop - Session 1

Secure IoT Using Weighted Signed Graphs	241
<i>Pinaki Sarkar and Morshed Uddin Chowdhury</i>	

A Multi-protocol Security Framework to Support Internet of Things	257
<i>Biplob R. Ray, Morshed U. Chowdhury, and Jemal H. Abawajy</i>	

Tinder Me Softly – How Safe Are You <i>Really</i> on Tinder?	271
<i>Mark Carman and Kim-Kwang Raymond Choo</i>	

Biometric Authentication Using Facial Recognition	287
<i>Mozammel Chowdhury, Junbin Gao, and Rafiqul Islam</i>	

Platform as a Service (PaaS) in Public Cloud: Challenges and Mitigating Strategy	296
<i>Fidel Ikundi, Rafiqul Islam, and Peter White</i>	

ATCS Workshop - Session 2

Architecture Support for Controllable VMI on Untrusted Cloud	307
<i>Jiangyong Shi and Yuexiang Yang</i>	

IacCE: Extended Taint Path Guided Dynamic Analysis of Android Inter-App Data Leakage	317
<i>Tianjun Wu and Yuexiang Yang</i>	

A Multi-layer Model to Detect Spam Email at Client Side	334
<i>Kamini (Simi) Bajaj</i>	

Cloud Security

Access Control Management for Secure Cloud Storage	353
<i>Enrico Bacis, Sabrina De Capitani di Vimercati, Sara Foresti, Stefano Paraboschi, Marco Rosa, and Pierangela Samarati</i>	

Attribution of Economic Denial of Sustainability Attacks in Public Clouds. . .	373
<i>Mohammad Karami and Songqing Chen</i>	

A Secure and Fast Dispersal Storage Scheme Based on the Learning with Errors Problem	392
<i>Ling Yang, Fuyang Fang, Xianhui Lu, Wen-Tao Zhu, Qiong Xiao Wang, Shen Yan, and Shiran Pan</i>	
ase-PoW: A Proof of Ownership Mechanism for Cloud Deduplication in Hierarchical Environments	412
<i>Lorena González-Manzano, Jose Maria de Fuentes, and Kim-Kwang Raymond Choo</i>	
Web Security and Privacy	
Website Forensic Investigation to Identify Evidence and Impact of Compromise	431
<i>Yuta Takata, Mitsuaki Akiyama, Takeshi Yagi, Takeshi Yada, and Shigeki Goto</i>	
SecWeb: Privacy-Preserving Web Browsing Monitoring with w -Event Differential Privacy	454
<i>Qian Wang, Xiao Lu, Yan Zhang, Zhibo Wang, Zhan Qin, and Kui Ren</i>	
A Behavioral Biometrics Based Approach to Online Gender Classification . . .	475
<i>Nicolas Van Balen, Christopher T. Ball, and Haining Wang</i>	
Unique on the Road: Re-identification of Vehicular Location-Based Metadata	496
<i>Zheng Xiao, Cheng Wang, Weili Han, and Changjun Jiang</i>	
System Security	
BINDNN: Resilient Function Matching Using Deep Learning	517
<i>Nathaniel Lageman, Eric D. Kilmer, Robert J. Walls, and Patrick D. McDaniel</i>	
TZ-SSAP: Security-Sensitive Application Protection on Hardware-Assisted Isolated Environment	538
<i>Yanhong He, Xianyi Zheng, Ziyuan Zhu, and Gang Shi</i>	
SQLite Forensic Analysis Based on WAL	557
<i>Yao Liu, Ming Xu, Jian Xu, Ning Zheng, and Xiaodong Lin</i>	
Impact of Environment on Branch Transfer of Software	575
<i>Jianming Fu, Yan Lin, and Xu Zhang</i>	

Mobile Security II

DroidClassifier: Efficient Adaptive Mining of Application-Layer Header for Classifying Android Malware	597
<i>Zhiqiang Li, Lichao Sun, Qiben Yan, Witawas Srisa-an, and Zhenxiang Chen</i>	
GreatEatlon: Fast, Static Detection of Mobile Ransomware.	617
<i>Chengyu Zheng, Nicola Dellarocca, Niccolò Andronio, Stefano Zanero, and Federico Maggi</i>	
Data Flow Analysis on Android Platform with Fragment Lifecycle Modeling	637
<i>Yongfeng Li, Jinbin Ouyang, Shanqing Guo, and Bing Mao</i>	
Alde: Privacy Risk Analysis of Analytics Libraries in the Android Ecosystem	655
<i>Xing Liu, Sencun Zhu, Wei Wang, and Jiqiang Liu</i>	

Hardware Security

FROPUF: How to Extract More Entropy from Two Ring Oscillators in FPGA-Based PUFs	675
<i>Qinglong Zhang, Zongbin Liu, Cunqing Ma, Changting Li, and Lingchen Zhang</i>	
Extracting More Entropy for TRNGs Based on Coherent Sampling.	694
<i>Jing Yang, Yuan Ma, Tianyu Chen, Jingqiang Lin, and Jiwu Jing</i>	
A Very Compact Masked S-Box for High-Performance Implementation of SM4 Based on Composite Field	710
<i>Hailiang Fu, Guoqiang Bai, and Xingjun Wu</i>	
Security Analysis of Vendor Customized Code in Firmware of Embedded Device	722
<i>Muqing Liu, Yuanyuan Zhang, Juanru Li, Junliang Shu, and Dawu Gu</i>	

Poster Session

POSTER: Security Analysis of Personal Unmanned Aerial Vehicles	743
<i>Peng Chen and Hao Chen</i>	
Modeling User Browsing Activity for Application Layer DDoS Attack Detection	747
<i>TungNgai Miu, Chenxu Wang, Daniel Xiapu Luo, and Jinhe Wang</i>	

POSTER: A Framework for IoT Reprogramming	751
<i>Nian Xue, Lulu Liang, Jie Zhang, and Xin Huang</i>	
Privacy Preserving Data Classification Using Inner Product Encryption	755
<i>Damien Ligier, Sergiu Carpov, Caroline Fontaine, and Renaud Sirdey</i>	
POSTER: Location Privacy Using Homomorphic Encryption	758
<i>Peizhao Hu and Siyu Zhu</i>	
SDNGuardian: Secure Your REST NBIs with API-Grained Permission Checking System	762
<i>Kailei Ren, Qiang Wei, Zehui Wu, and Qingxian Wang</i>	
POSTER: A Novel Wavelet Denoising Method Based on Robust Principal Component Analysis in Side Channel Attacks.	766
<i>Juan Ai, Zhu Wang, Xinping Zhou, and Changhai Ou</i>	
Exploitation of NetEm Utility for Non-payload-based Obfuscation Techniques Improving Network Anomaly Detection	770
<i>Ivan Homoliak, Martin Teknos, Maros Barabas, and Petr Hanacek</i>	
POSTER: Non-intrusive Face Spoofing Detection Based on Guided Filtering and Image Quality Analysis.	774
<i>Fei Peng, Le Qin, and Min Long</i>	
Author Index	779

Security and Privacy in Communication Networks
12th International Conference, SecureComm 2016,
Guangzhou, China, October 10-12, 2016, Proceedings
Deng, R.; Weng, J.; Ren, K.; Yegneswaran, V. (Eds.)
2017, XV, 781 p. 256 illus., Softcover
ISBN: 978-3-319-59607-5