Sixth Annual Conference on Privacy, Security and Trust

Fredericton, New Brunswick, Canada
October 1-3, 2008
Table of Contents

Sixth Annual Conference on Privacy, Security, and Trust
PST 2008

Message from the Conference Chair .......................................................... viii
Preface ............................................................................................................... ix
Conference Organizers .................................................................................... x
Program Committee ......................................................................................... xi
Additional Reviewers ....................................................................................... xi

Security
An Effective Defense against Intrusive Web Advertising ................................................... 3
Viktor Krammer
OpenHouse: A Secure Platform for Distributed Home Services ........................................... 15
Jani Suomalainen, Seamus Moloney, Juha Koivisto, and Kari Keinänen
An Access Control Scheme for Protecting Personal Data .................................................. 24
Wilfred Villegas, Bader Ali, and Muthucumaru Maheswaran
A Multiple-Control Fuzzy Vault ............................................................................... 36
Marianne Hirschbichler, Colin Boyd, and Wageeh Boles

Privacy
Unlinkable Communication .................................................................................. 51
Volker Fusenig, Eugen Staab, Uli Sorger, and Thomas Engel
Towards Privacy Taxonomy-Based Attack Tree Analysis for the Protection
of Consumer Information Privacy ........................................................................... 56
Kamil Reddy, H.S. Venter, Martin Olivier, and Iain Currie
Confidence-Compensating Privacy Protection ........................................................... 65
Piotr Cofa
IT Security and Privacy Issues in Global Financial Services Institutions: Do Socio-Economic
and Cultural Factors Matter? ................................................................................ 75
Princely Ifinedo
Security

Cross-Language Weaving Approach Targeting Software Security Hardening ......................................................... 87
  Azzam Mourad, Dima Alhadidi, and Mourad Debbabi

LogView: Visualizing Event Log Clusters ................................................................................................................. 99
  Adetokunbo Makanju, Stephen Brooks, A. Nur Zincir-Heywood, and Evangelos E. Milios

Cryptanalysis of Bohio et al.’s ID-Based Broadcast Signcryption (IBBSC) Scheme for Wireless Ad-Hoc Networks ........................................................... 109
  S. Sharmila Deva Selvi, S. Sree Vivek, Naga Naresh Karuturi, Ragavendran Gopalakrishnan, and Pandu Rangan Chandrasekaran

Encoding the Program Correctness Proofs as Programs in PCC Technology ........................................................... 121
  Heidar Pirzadeh and Danny Dubé

Model-Checking for Software Vulnerabilities Detection with Multi-Language Support ............................................ 133
  Rachid Hadjidj, Xiaochun Yang, Syrine Tlili, and Mourad Debbabi

Trust

The Effect of Behavior Change on Honesty Checking in Peer-to-Peer Systems .................................................... 145
  Farag Azzedin and Ahmad Ridha

An Efficient Reputation-Based Routing Mechanism for Wireless Sensor Networks:
  Testing the Impact of Mobility and Hostile Nodes .................................................................................................. 151
  Nathan Lewis and Noria Foukia

Investigating Two Different Approaches for Encrypted Traffic Classification ..................................................... 156
  Riyad Alshammari and A. Nur Zincir-Heywood

CCTB: Context Correlation for Trust Bootstrapping in Pervasive Environment .................................................. 167
  Sheikh I. Ahamed, Mehrab Monjur, and Mohammad Saiful Islam

Trust and Security

The Uncertainty of the Truth .................................................................................................................................. 177
  Michel Deriaz

A Detailed Comparison of Probabilistic Approaches for Coping with Unfair Ratings in Trust and Reputation Systems ............................................................................................................. 189
  Jie Zhang, Murat Şensoy, and Robin Cohen

AttributeTrust — A Framework for Evaluating Trust in Aggregated Attributes via a Reputation System .................. 201
  Apurva Mohan and Douglas M. Blough

Mimicry Attacks Demystified: What Can Attackers Do to Evade Detection? .................................................. 213
  Hilmi Günes Kayacik and A. Nur Zincir-Heywood
Privacy

Utility of Knowledge Extracted from Unsanitized Data when Applied to Sanitized Data ...................................................... 227  
Michal Sramka, Reihaneh Safavi-Naini, Jörg Denzinger, Mina Askari, and Jie Gao

Incorporating Privacy Outcomes: Teaching an Old Dog New Tricks .......................................................................................... 232  
Ed Brown and Tracy Ann Kosa

Private and Cheating-Free Outsourcing of Algebraic Computations .......................................................................................... 240  
David Benjamin and Mikhail J. Atallah

A Protocol for Building Secure and Reliable Covert Channel .................................................................................................. 246  
Baishakhi Ray and Shivakant Mishra

Author Index .................................................................................................................................................................................. 255