

# **2011 Conference on Network and Information Systems Security**

**(SAR-SSI 2011)**

**La Rochelle, France  
18 – 21 May 2011**



**IEEE Catalog Number: CFP11SAI-PRT**  
**ISBN: 978-1-4577-0735-3**

# TABLE OF CONTENTS

<b>A First Approach to Detect Suspicious Peers in the KAD P2P Network</b> .....	1
<i>Thibault Cholez, Christopher Henard, Isabelle Chrisment, Olivier Festor, Guillaume Doyen, Rida Khatoun</i>	
<b>A Framework Using IBC Achieving Non-Repudiation and Privacy in Vehicular Network</b> .....	9
<i>Amira Bradai, Hossam Afifi</i>	
<b>A New Convergent Identity System Based on EAP-TLS Smart Cards</b> .....	15
<i>Pascal Urien, Estel Marie, Christophe Kiennert</i>	
<b>A Novel Traceback Approach for Direct and Reflected ICMP Attacks</b> .....	21
<i>Hachem Guerid, Ahmed Serhrouchni, Mohammed Achemlal, Karel Mittig</i>	
<b>A Posterior Distribution for Anti-Spam Bayesian Statistical Model</b> .....	26
<i>Youcef Begriche, Houda Labiod</i>	
<b>A Risk Propagation Based Quantitative Assessment Methodology for Network Security - Aeronautical Network Case Study</b> .....	32
<i>Mohamed Slim Ben Mahmoud, Nicolas Larrieu, Alain Pirovano</i>	
<b>A Secure Web Service-Based Platform for Wireless Sensor Network Management and Interrogation</b> .....	41
<i>Ahmed Amokrane, Yacine Challal, Amar Balla</i>	
<b>A Semantic Information Model Based on the Privacy Legislation</b> .....	49
<i>Kheira Bekara, Maryline Laurent</i>	
<b>An Integrated Session Table for Security and QoS</b> .....	55
<i>Mahmoud Mostafa, Anas Abou El Kalam, Abdeljebar Ameziane, Christian Fraboul</i>	
<b>Analysis Vulnerabilities in Smart Card Web Server</b> .....	63
<i>Mathieu Barreaud, Julien Iguchi-Cartigny, Jean-Louis Lanet</i>	
<b>Automatic Generation of Vulnerability Tests for the Java Card Byte Code Verifier</b> .....	68
<i>Aymerick Savary, Marc Frappier, Jean-Louis Lanet</i>	
<b>Botnets: Lifecycle and Taxonomy</b> .....	75
<i>Nabil Hachem, Yosra Ben Mustapha, Gustavo Gonzalez Granadillo, Hervé Debar</i>	
<b>Decisive Heuristics to Differentiate Legitimate from Phishing Sites</b> .....	83
<i>Sophie Gastellier-Prevost, Gustavo Gonzalez Granadillo, Maryline Laurent</i>	
<b>Document Tracking - On the Way to a New Security Service</b> .....	92
<i>Rainer Schick, Christoph Ruland</i>	
<b>Dynamic Malware Detection by Similarity Measures between Behavioral Profiles: An Introduction in French</b> .....	97
<i>Jean-Marie Borello, Ludovic Mé, Éric Filiol</i>	
<b>Enhanced Authentication Protocol in IMS Environment</b> .....	105
<i>M. Maachouai, A. Abou El Kalam, C. Fraboul, A. Ait Ouahman</i>	
<b>Federated Claims Based Authentication and Access Control in the Vehicular Networks</b> .....	113
<i>Ramzi Debab, Yacine Challal</i>	
<b>Financial Critical Infrastructure: A MAS Trusted Architecture for Alert Detection and Authenticated Transactions</b> .....	119
<i>G. Guenkam, C. Feltus, C. Bonhomme, Z. Guessoum, P. Schmitt, B. Gateau, D. Khadraoui</i>	
<b>From KAOS to RBAC: A Case Study in Designing Access Control Rules from a Requirements Analysis</b> .....	127
<i>Yves Ledru, Jean-Luc Richier, Akram Idani, Mohamed-Amine Labiadh</i>	
<b>HTTP Session Management: Architecture and Cookies Security</b> .....	135
<i>Ines Ayadi, Ahmed Serhrouchni, Guy Pujolle, Noémie Simoni</i>	
<b>Information Flow and Execution Policy for a Model of Detection without False Negatives</b> .....	142
<i>Stéphane Geller</i>	
<b>MARV - Data Level Confidentiality Protection in BPEL-Based Web Service Compositions</b> .....	151
<i>Filip Majernik, Meiko Jensen, Jörg Schwenk</i>	
<b>Modeling Source Authentication Protocols in Wireless Sensor Networks Using HLPSL</b> .....	159
<i>Wafa Ben Jaballah, Mohamed Mosbah, Habib Youssef, Olivier Ly, Aref Meddeb</i>	
<b>Modelling to Simulate Botnet Command and Control Protocols for the Evaluation of Network Intrusion Detection Systems</b> .....	168
<i>Georges Bossert, Guillaume Hiet, Thibaut Henin</i>	
<b>Network-Independent Support for Using Multiple IP Interfaces in Applications</b> .....	176
<i>Antonino Famulari, Artur Hecker</i>	
<b>Optimising Rule Order for a Packet Filtering Firewall</b> .....	186
<i>Ian Mothersole, Martin J. Reed</i>	

<b>Properties of Linear Transformations for Symmetric Block Ciphers on the Basis of MDS-Codes</b> .....	192
<i>Victor Ruzhentsev, Roman Oliynykov</i>	
<b>Security Modeling with BDMP: From Theory to Implementation</b> .....	196
<i>Ludovic Piètre-Cambacédès, Yann Deflesselle, Marc Bouissou</i>	
<b>SeNsIM-SEC: Security in Heterogeneous Sensor Networks</b> .....	204
<i>Valentina Casola, Alessandra De Benedictis, Antonino Mazzeo, Nicola Mazzocca</i>	
<b>Sensor and Data Privacy in Industrial Wireless Sensor Networks</b> .....	212
<i>Nouha Oualha, Alexis Olivereau</i>	
<b>Study of the Robustness of a Cancelable Biometric System</b> .....	220
<i>R. Belguechi, T. Le-Goff, E. Cherrier, C. Rosenberger</i>	
<b>The CISO's Multitool Knife</b> .....	227
<i>Loic Baud, Patrick Bellot</i>	
<b>Towards a Formal Data Flow Oriented Model for Network Security Policies Analysis</b> .....	234
<i>Hicham El Khoury, Romain Laborde, Francois Barrère, Abdelmalek Benzekri</i>	
<b>Towards Multi-Layer Autonomic Isolation of Cloud Computing and Networking Resources</b> .....	241
<i>Aurélien Wailly, Marc Lacoste, Hervé Debar</i>	
<b>Tree Automata Based Semantics of Firewalls</b> .....	250
<i>Tony Bourdier</i>	
<b>Trusted Platform Module as an Enabler for Security in Cloud Computing</b> .....	258
<i>Mohammed Achemlal, Saïd Gharout, Chrystel Gaber</i>	
<b>Using SEND Signature Algorithm Agility and Multiple-Key CGA to Secure Proxy Neighbor Discovery and Anycast Addressing</b> .....	264
<i>Tony Cheneau, Maryline Laurent</i>	
<b>Using the HMAC-Based One-Time Password Algorithm for TLS Authentication</b> .....	271
<i>Balkis Hamdane, Ahmed Serhrouchni, Adrien Montfaucon, Sihem Guemara</i>	
<b>Author Index</b>	