

# Conference Program

IFIP SEC 2015, IFIPTM 2015, WISE 9, Workshop on Assurance & Control, Workshop on Information Security Management

Presenters should prepare their talk to last a maximum of 20 minutes to allow sufficient time for discussion. Short papers will have 10-15 minutes for presentation.



## 25 May 2015 (Monday)

- 09:00 TC-11 Meeting (IFIP TC-11 members only) 121W
- 12:30 Lunch Break
- 14:00 TC-11 Meeting
- 18:00 TC-11 Meeting End
- 19:00 TC-11 Dinner (IFIP TC-11 members only)

## 26 May 2015 (Tuesday)

- 08:00 Registration First Floor
- 09:00 **IFIP SEC 2015 Opening** 221W
  - IFIP SEC Invited Talk**
  - The SCION Next-generation Secure Internet Architecture**
  - Adrian Perrig (ETH Zürich, Switzerland)*
- 10:30 Coffee Break Ground Floor
- 11:00 **Parallel Session 1a: IFIP SEC (Privacy I, Chair: Jaap-Henk Hoepman)** 121W
  - O-PSI: Delegated Private Set Intersection on Outsourced Datasets  
*Aydin Abadi, Sotirios Terzis and Changyu Dong*
  - Flexible and Robust Privacy-Preserving Implicit Authentication  
*Josep Domingo-Ferrer, Qianhong Wu and Alberto Blanco-Justicia*
  - Towards Relations between the Hitting-Set Attack and the Statistical Disclosure Attack  
*Dang Vinh Pham and Dogan Kesdogan*
- 11:00 **Parallel Session 1b: IFIP SEC (Web Security, Chair: Carlos Rieder)** 221W
  - Cache Timing Attacks revisited: efficient and repeatable browser history, OS and network sniffing  
*Chetan Bansal, Sören Preibusch and Natasa Milic-Frayling*
  - Enforcing Usage Constraints on Credentials for Web Applications  
*Jinwei Hu, Heiko Mantel and Sebastian Ruhleder*
  - A Survey of Alerting Websites: Risks and Solutions  
*Amrit Kumar and Cedric Lauradoux*

11:00	<b>Parallel Session 1c: WISE (Tools and Applications for Teaching, Chair: Matt Bishop)</b>	223W
	Welcome by IFIP WG 11.8 Chair – Lynn Fitcher	
	Learn To Spot Phishing URLs with the Android NoPhish App <i>Gamze Canova, Melanie Volkamer, Clemens Bergmann, Roland Borza, Benjamin Reinheimer, Simon Stockhardt and Ralf Tenberg</i>	
	An Innovative Approach in Digital Forensic Education and Training: the EduFors Tool <i>Primož Cigoj and Borka Jerman-Blazic</i>	
	On Experience of Using Distance Learning Technologies for Teaching Cryptology <i>Sergey Zapechnikov, Natalia Miloslavskaya and Vladimir Budzko</i>	
11:00	<b>Parallel Session 1d: IFIPTM (Short Papers)</b>	120W
	1,2, pause: Lets start by meaningfully navigating the current online authentication solutions space <i>Ijlal Loumi and Audun Jøsang</i>	
	Data Confidentiality in Cloud Storage Protocol based on Secret Sharing Scheme: A brute force ajack evaluation <i>Alexandru Butoi, Mircea Moca and Nicolae Tomai</i>	
	The Detail of Trusted Messages: Retweets in a Context of Health and Fitness <i>Natasha Dwyer and Stephen Marsh</i>	
	Reusable Defense Components for Online Reputation Systems <i>Johannes Sanger, Christian Richthammer, Artur Rasch and Gunther Pernul</i>	
	Continuous Context-Aware Device Comfort Evaluation Method <i>Jingjing Guo, Christian Damsgaard Jensen and Jianfeng Ma</i>	
12:30	Lunch Break	Ground Floor
13:30	IFIP WG 11.11 Meeting	120W
14:00	<b>Parallel Session 2a: IFIP SEC (Privacy II, Chair: Bart De Decker)</b>	121W
	POSN: A Personal Online Social Network <i>Esra Erdin, Eric Klukovich, Mehmet Gunes and Gurhan Gunduz</i>	
	Strategic Noninterference <i>Wojciech Jamroga and Masoud Tabatabaei</i>	
	Verifying Observational Determinism <i>Jaber Karimpour, Ayaz Isazadeh and Ali A. Noroozi</i>	
14:00	<b>Parallel Session 2b: IFIP SEC (Mobile and Cloud Services Security I, Chair: Nathan Clarke)</b>	221W
	ApkCombiner: Combining Multiple Android Apps to Support Inter-AppAnalysis <i>Li Li, Alexandre Bartel, Tegawende F. Bissyande, Jacques Klein and Yves Le Traon</i>	
	Assessment of the Susceptibility to Data Manipulation of Android Games with In-app Purchases <i>Francisco Vigario, Miguel Neto, Diogo Fonseca, Mario M. Freire and Pedro R. M. Inacio</i>	
	An Empirical Study on Android for Saving Non-shared Data on Public Storage <i>Xiangyu Liu, Zhe Zhou, Wenrui Diao, Zhou Li and Kehuan Zhang</i>	
14:00	<b>Parallel Session 2c: WISE</b>	223W
	Panel Discussion: <b>Building National Cybersecurity Workforces</b>	
14:30	<b>Parallel Session 2d: IFIPTM</b>	120W
	IFIPTM Keynote on <b>Data Protection</b> by <i>Marit Hansen</i> (ULD Kiel)	
15:30	Coffee Break	Ground Floor
16:00	<b>Parallel Session 3a: IFIP SEC (Security Management and Human Aspects of Security I, Chair: Ingrid Schauer-Muller-Bichl)</b>	121W
	Social groupings and information security obedience within organizations <i>Teodor Sommestad</i>	
	Attack Trees with Sequential Conjunction <i>Ravi Jhavar, Barbara Kordy, Sjouke Mauw, Sasa Radomirovic and Rolando Trujillo-Rasua</i>	
	Enhancing the Security of Image CAPTCHAs through Noise Addition <i>David Lorenzı, Emre Uzun, Jaideep Vaidya, Shamik Sural and Vijay Atluri</i>	
16:00	<b>Parallel Session 3b: IFIP SEC (Mobile and Cloud Services Security II, Chair: Leon Strous)</b>	221W
	The Dual-Execution-Environment Approach: Analysis and Comparative Evaluation <i>Mohamed Sabt, Mohammed Achemlal and Abdelmadjid Bouabdallah</i>	
	On the Privacy, Security and Safety of Blood Pressure and Diabetes Apps <i>Konstantin Knorr, David Aspinall and Maria Wolters</i>	
	A Cloud-based eHealth Architecture for Privacy Preserving Data Integration <i>Alevtina Dubovitskaya, Visara Urovi, Matteo Vasirani, Karl Aberer and Michael I. Schumacher</i>	

- 16:00 **Parallel Session 3c: WISE (Software Security Education, Chair: Erik Moore)** 223W  
 Cybersecurity through Secure Software Development  
*Audun Jøsang, Marte Ødegaard and Erlend Oftedal*  
 Security Injections 2.0: Increasing Engagement and Faculty Adoption using Enhanced Secure Coding Modules for Lower-level Programming Courses  
*Sagar Raina, Blair Taylor and Siddharth Kaza*  
 The Use of Software Design Patterns to Teach Secure Software Design: an Integrated approach  
*Johan van Niekerk and Lynn Fitcher*
- 16:00 **Parallel Session 3d: IFIPTM** 120W  
 Tutorial / Panel on **Data Protection**
- 18:15 Bus transfer from Dammtor (Shell gas station, REISERING buses) to Reception at Town Hall. Alternatively, you can walk or use public transport. See the program book in your conference bag for instructions.
- 19:00 Reception ("Senatsempfang") with drinks and Finger Food: Hamburg Town Hall, Rathausmarkt 1, 20095 Hamburg  
 Appropriate attire (business formal or business casual) expected, but not enforced strictly. **Please remember to bring your invitation card and passport with you.**

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## 27 May 2015 (Wednesday)

- 08:30 Registration First Floor
- 09:00 **IFIP SEC Invited Talk** 221W  
**Advances in Privacy Aware Authentication**  
*Miroslaw Kutylowski (Wroclaw University of Technology)*
- 10:30 Coffee Break Ground Floor
- 11:00 **Parallel Session 4a: IFIP SEC (Applied Cryptography, Chair: Dominik Herrmann)** 121W  
 Fast Revocation of Attribute-Based Credentials for Both Users and Verifiers  
*Wouter Lueks, Gergely Alpar, Jaap-Henk Hoepman and Pim Vullers*  
 Chaotic Chebyshev polynomials based remote user authentication scheme in client-server environment  
*Toan-Thinh Truong, Minh-Triet Tran, Anh-Duc Duong and Isao Echizen*  
 A Secure Exam Protocol Without Trusted Parties  
*Giampaolo Bella, Rosario Giustolisi, Gabriele Lenzini and P. Y. A. Ryan*
- 11:00 **Parallel Session 4b: IFIP SEC (Software Security I, Chair: André Zúquete)** 221W  
 SHRIFT System-wide HybRid Information Flow Tracking  
*Enrico Lovat, Alexander Fromm, Martin Mohr and Alexander Pretschner*  
 ISboxing: an Instruction Substitution based Data Sandboxing for x86 Untrusted Libraries  
*Liang Deng, Qingkai Zeng and Yao Liu*  
 Exploit Generation for Information Flow Leaks in Object-Oriented Programs  
*Quoc Huy Do, Richard Bubel and Reiner Hähnle*
- 11:00 **Parallel Session 4c: WISE (Innovative Methods, Chair: Natalia Miloslavskaya)** 223W  
 Realism in Teaching Cybersecurity Research: The Agile Research Process  
*Melissa Dark, Matt Bishop and Rick Linger*  
 Assurance Cases as a Didactic Tool for Information Security  
*Roberto Gallo and Ricardo Dahab*  
 Cognitive Task Analysis Based Training for Cyber Situation Awareness  
*Zequn Huang, Chien-Chung Shen, Sheetal Doshi, Nimmi Thomas and Ha Duong*  
 A Cyber Security Multi Agency Collaboration for Rapid Response That Uses AGILE Methods on an Education Infrastructure  
*Erik Moore and Daniel Likarish*
- 11:00 **Parallel Session 4d: IFIPTM (Authentication)** 120W  
 Mathematical Modeling of Trust Issues in Federated Identity Management  
*Md. Sadek Ferdous, Gethin Norman, Audun Jøsang and Ron Poet*  
 Simple and Practical Integrity Models for Binaries and Files  
*Yongzheng Wu and Roland H.C. Yap*  
 Enabling NAME-based security and trust  
*Nikos Fotiou and George C. Polyzos*
- 11:00 **Parallel Session 4e: Workshop on Assurance & Control / Workshop on Information Security Management** 220W  
 Welcome by Workshop co-chairs - Abbas Shahim / Gurpreet Dhillon and Karen Hedstrom  
 Information assurance  
*Ronald Paans*  
 Keynote on Audit & Trust in cloud environments  
*Abbas Shahim*

12:30	Lunch Break	Ground Floor
14:00	<b>Parallel Session 5a: IFIP SEC (Access Control, Trust and Identity Management I, Chair: Dogan Kesdogan)</b> A Generalization of ISO/IEC 24761 to Enhance Remote Authentication with Trusted Product at Claimant <i>Asahiko Yamada</i> Enhancing Passwords Security using Deceptive Covert Communication <i>Mohammed Almeshekeh, Mikhail Atallah and Eugene Spafford</i> Information Sharing and User Privacy in the Third-party Identity Management Landscape <i>Anna Vapen, Niklas Carlsson, Anirban Mahanti and Nahid Shahmehri</i>	121W
14:00	<b>Parallel Session 5b: IFIP SEC (Software Security II, Chair: Hannes Federrath)</b> Memoized Semantics-Based Binary Diffing with Application to Malware Lineage Inference <i>Jiang Ming, Dongpeng Xu and Dinghao Wu</i> Mitigating Code-Reuse Attacks on CISC Architectures in a Hardware Approach <i>Zhijiao Zhang, Yashuai Lü, Yu Chen, Yongqiang Lü and Yuanchun Shi</i> Integrity for Approximate Joins on Untrusted Computational Servers <i>Sabrina De Capitani Di Vimercati, Sara Foresti, Sushil Jajodia, Stefano Paraboschi and Pierangela Samarati</i>	221W
14:00	<b>Parallel Session 5c: WISE (Syllabus Design, Chair: Lynn Fitcher)</b> Reflections on the Ethical Content of the IT honours Program Project Module <i>Lynette Drevin and Gunther Drevin</i> Professional Competencies Level Assessment for Training of Masters in Information Security <i>Natalia Miloslavskaya and Alexander Tolstoy</i> History of Cryptography in Syllabus on Information Security Training <i>Sergey Zapechnikov, Alexander Tolstoy and Sergey Nagibin</i>	223W
14:00	<b>Parallel Session 5d: IFIPTM (Privacy)</b> Trust Driven Strategies for Privacy by Design <i>Thibaud Antignac and Daniel Le Métayer</i> Lightweight practical private one-way anonymous messaging <i>Anirban Basu, Juan Camilo Corena, Jaideep Vaidya, Jon Crowcrog, Shinsaku Kiyomoto, Stephen Marsh, Yung Shin Van Der Sype and Toru Nakamura</i> Privacy-Preserving Reputation Mechanism: A Usable Solution Handling Negative Ratings <i>Paul Lajoie-Mazenc, Emmanuelle Anceaume, Gilles Gueje, Thomas Sirvent and Valérie Viet Triem Tong</i>	120W
14:00	<b>Parallel Session 5e: Workshop on Assurance &amp; Control / Workshop on Information Security Management</b> Security Operations Center <i>Stef Schinagl and Keith Schoon</i> Investigating Cloud Storage Security Requirements and Critical Controls <i>Farashazillah Yahya, Robert Walters and Gary Wills</i>	220W
15:30	Coffee Break	Ground Floor
16:00	<b>Parallel Session 6a: IFIP SEC (Access Control, Trust and Identity Management II, Chair: Simone Fischer-Hübner)</b> An Iterative Algorithm for Reputation Aggregation in Multi-dimensional and Multinomial Rating Systems <i>Mohsen Rezvani, Mohammad Allahbakhsh, Lorenzo Vigentini, Aleksandar Ignjatovic and Sanjay Jha</i> A Comparison of PHY-Based Fingerprinting Methods Used to Enhance Network Access Control <i>Timothy Carbino, Michael Temple and Juan Lopez Jr.</i> Model-driven Integration and Analysis of Access-control Policies in Multi-layer Information Systems <i>Salvador Martínez, Joaquin Garcia-Alfaro, Frédéric Cuppens, Nora Cuppens-Boulahia and Jordi Cabot</i>	121W
16:00	<b>Parallel Session 6b: IFIP SEC (Network Security, Chair: Kai Rannenberg)</b> Authenticated File Broadcast Protocol <i>Simão Reis, André Zúquete, Carlos Faneca and José Vieira</i> Automated Classification of C&C Connections through Malware URL Clustering <i>Nizar Kheir, Gregory Blanc, Hervé Debar, Joaquin Garcia-Alfaro and Dingqi Yang</i> B.Hive: A Zero Configuration Forms Honeypot for Productive Web Applications <i>Christoph Pohl, Alf Zugenmaier, Michael Meier and Hans-Joachim Hof</i>	221W
16:00	<b>Parallel Session 6d: IFIPTM (Trust in Online Collaboration)</b> Obscuring Provenance Confidential Information via Graph Transformation <i>Jamal Hussein, Luc Moreau and Vladimiro Sassone</i> Social Network Culture Needs the Lens of Critical Trust Research <i>Natasha Dwyer and Stephen Marsh</i> Predicting Quality of Crowdsourced Annotations using Graph Kernels <i>Archana Nojamkandath, Jasper Oosterman, Davide Ceolin, Gerben Klaas Dirk de Vries and Wan Fokkink</i> An Architecture for Trustworthy Open Data Services <i>Andrew Wong, Vivky Liu, William Caelli and Tony Sahama</i>	120W

- 16:00 **Parallel Session 6e: Workshop on Assurance & Control / Workshop on Information Security Management** 220W  
 IT audit and financial statement review  
*Andre Sanders*  
 Secure and Privacy Focused Customer Device Management in a Smart Household Environment  
*Hartmut Richthammer and Dogan Kesdogan*
- 18:15 Bus transfer from Dammtor (Shell gas station, REISERING buses) to Gala Dinner. Alternatively, you can use public transport. See the program book in your conference bag for instructions.
- 19:00 Gala Dinner: **Lutter & Wegner (<http://www.l-w-hamburg.de/location/>)**, Große Elbstraße 49, 22767 Hamburg  
 Bring your badge / dinner ticket!
- 21:30 Early Bus from Restaurant back to Dammtor
- 22:30 Late Bus from Restaurant back to Dammtor
- 23:00 End of Gala Dinner; you can use public transport (Bus 112) from **Hafentreppe** or **Fischmarkt** bus stops to get back to Dammtor station.

## 28 May 2015 (Thursday)

- 08:30 Registration First Floor
- 09:00 **Parallel Session 7a: IFIP SEC (Security Management and Human Aspects of Security II, Chair: Philippos Peteties)** 121W  
 Investigation of Employee Security Behaviour: A Grounded Theory Approach  
*Lena Connolly, Michael Lang and Doug J. Tygar*  
 Practice-Based Discourse Analysis of InfoSec Policies  
*Fredrik Karlsson, Goran Goldkuhl and Karin Hedström*  
 Understanding Collaborative Challenges in IT Security Preparedness Exercises  
*Maria B. Line and Nils Brede Moe*
- 09:00 **Parallel Session 7b: IFIP SEC (Cyber-physical Systems and Critical Infrastructures Security, Chair: Peter Lambert)** 221W  
 Application of a Game Theoretic Approach in Smart Sensor Data Trustworthiness Problems  
*Konstantinos Maraslis, Theodoros Spyridopoulos, George Oikonomou, Theo Tryfonas and Mo Haghghi*  
 Securing BACnet's Pitfalls  
*Jaspreet Kaur, Jernej Tonejc, Steffen Wendzel and Michael Meier*  
 On the secure distribution of vendor-specific keys in deployment scenarios  
*Nicolai Kuntze and Carsten Rudolph*
- 09:00 **Parallel Session 7c: WISE** 223W  
 WG 11.8 meeting (All IFIP WG 11.8 members) and WISE9 Closing
- 09:00 **Parallel Session 7d: IFIPTM (Towards Trustworthy Cloud Infrastructures)** 120W  
 A Cloud Orchestrator for deploying public services on the cloud — the case of STRATEGIC project  
*Panagiotis Gouvas, Konstantinos Kalaboukas, Giannis Ledakis, Theo Dimitrakos, Joshua Daniel, Géry Ducatel and Nuria Rodriguez Dominguez*  
 Integrating Security Services in Cloud Service Stores  
*Joshua Daniel, Fadi El-Moussa, Géry Ducatel, Pramod Pawar, Ali Sajjad, Robert Rowlingson and Theo Dimitrakos*  
 Building an Eco-System of Trusted Services via user Control and Transparency on Personal Data  
*Michele Vescovi, Corrado Moiso, Mapa Pasolli, Lorenzo Cordin and Fabrizio Antonelli*  
 Security-as-a-Service in Multi-cloud and Federated Cloud Environments  
*Pramod S. Pawar, Ali Sajjad, Theo Dimitrakos and David W. Chadwick*  
 The role of SLAs in building a Trusted Cloud for Europe  
*Ana Juan Ferrer and Enric Pages i Montanera*
- 10:30 Coffee Break Ground Floor
- 11:00 **IFIP SEC 2015 Awards Session** 221W  
 Video message from the Kristian Beckman Award 2015 winner  
*Ian Brown, Professor of Information Security and Privacy at the Oxford Internet Institute of the University of Oxford*  
 IFIP SEC 2015 Best Student Paper Award  
 Reputation – from Social Perception to Internet Security  
*Ehud Gudes, Ben-Gurion University of the Negev, William Winsborough Award Winner*
- 12:30 **IFIP SEC 2015 Closing Remarks** 221W
- 12:30 **IFIPTM 2015 Closing Remarks** 221W

- 14:30 Optional Social Event: **Waterways trip "Fleetfahrt"** (<http://www.alstertouristik.de/English/classics/waterways-trip.html?>)  
Boat departs from Jungfernstieg at the waterfront (pier number will be announced on Wednesday at the registration desk).  
Important notes: You have to sign up for the social event at the registration desk. There is no organized transfer from SEC venue. There is no lunch on the boat and no space for large pieces of luggage.
- 16:30 End of optional Social Event  
Boat returns to Jungfernstieg.
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### **29 May 2015 (Friday)**

Important note: The Workshop on Information Security Management is now scheduled on 27 May 2015 (Wednesday) 16:00-17:30.