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**580** 

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# IFIP - The International Federation for Information Processing

IFIP was founded in 1960 under the auspices of UNESCO, following the first World Computer Congress held in Paris the previous year. A federation for societies working in information processing, IFIP's aim is two-fold: to support information processing in the countries of its members and to encourage technology transfer to developing nations. As its mission statement clearly states:

IFIP is the global non-profit federation of societies of ICT professionals that aims at achieving a worldwide professional and socially responsible development and application of information and communication technologies.

IFIP is a non-profit-making organization, run almost solely by 2500 volunteers. It operates through a number of technical committees and working groups, which organize events and publications. IFIP's events range from large international open conferences to working conferences and local seminars.

The flagship event is the IFIP World Computer Congress, at which both invited and contributed papers are presented. Contributed papers are rigorously refereed and the rejection rate is high.

As with the Congress, participation in the open conferences is open to all and papers may be invited or submitted. Again, submitted papers are stringently refereed.

The working conferences are structured differently. They are usually run by a working group and attendance is generally smaller and occasionally by invitation only. Their purpose is to create an atmosphere conducive to innovation and development. Refereeing is also rigorous and papers are subjected to extensive group discussion.

Publications arising from IFIP events vary. The papers presented at the IFIP World Computer Congress and at open conferences are published as conference proceedings, while the results of the working conferences are often published as collections of selected and edited papers.

IFIP distinguishes three types of institutional membership: Country Representative Members, Members at Large, and Associate Members. The type of organization that can apply for membership is a wide variety and includes national or international societies of individual computer scientists/ICT professionals, associations or federations of such societies, government institutions/government related organizations, national or international research institutes or consortia, universities, academies of sciences, companies, national or international associations or federations of companies.

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Marko Hölbl · Kai Rannenberg · Tatjana Welzer (Eds.)

# ICT Systems Security and Privacy Protection

35th IFIP TC 11 International Conference, SEC 2020 Maribor, Slovenia, September 21–23, 2020 Proceedings



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# **Preface**

In these challenging times caused by the COVID-19 situation, we are honored to bring you this collection of the best papers submitted to the 35th IFIP International Conference on ICT Systems Security and Privacy Protection, which was held in Maribor, Slovenia, September 21–23, 2020. IFIP SEC conferences are the flagship events of the International Federation for Information Processing (IFIP) Technical Committee 11 on Information Security and Privacy Protection in Information Processing Systems (TC-11).

The 2020 edition of the IFIP SEC proceedings includes 29 high-quality papers covering a wide range of research areas in the information security field. They were authored by researchers from 19 different countries. The selection of papers was a highly challenging task: 149 received submissions were evaluated based on their significance, novelty, and technical quality. Each paper received at least three, but most of them four reviews by members of the Program Committee. The Program Committee meetings were held electronically, with intensive discussions over a period of three weeks. Of the papers submitted, 29 were selected for presentation at the conference, leading to an acceptance rate of 19.5%.

We want to express our appreciation to all the contributors who helped to make IFIP SEC 2020 a success. There is a long list of people who volunteered their time and energy to put together the conference and who deserve acknowledgement. We want to thank the members of the Program Committee and the external reviewers, who devoted significant amounts of their time to evaluate all the submissions. Special thanks go to the keynote speakers Elisa Bertino from Purdue University West Lafayette, USA, and Stanka Šalamun and Mitja Kolšek from Opatch by ACROS Security, Slovenia, who accepted our invitation to present their insights at the conference.

Further individuals who deserve special thanks and without whom the current program and success of the conference would not have been possible include: the organizing chair Lili Nemec Zlatolas and the members of the Organizing Committee Borut Zlatolas, Luka Hrgarek, and Marko Kompara, all from the University of Maribor, Faculty of Electrical Engineering and Computer Science. They kept all things smooth and flowing, even after the delays caused by the pandemic. The IFIP SEC and WISE had to be postponed without clear information on when public events like it could be safely held again. The IFIP Summer School, which was being organized separately, also got postponed and found a new home at IFIP SEC 2020. Due to the constant changes in local regulation, the questionable safety of international travel and uncertainty regarding the future spread of the disease, the decision was made to hold the conference virtually, despite the best efforts to have it in Maribor, Slovenia. Special recognition goes to Hotel City Maribor and the Maribor Convention Bureau, who were very accommodating and understanding regardless of the economic impact of the unfortunate situation, and we express our regret to the participants, for missing the opportunity to see the beauty Slovenia has to offer.

#### Preface

vi

We also acknowledge the institutional support for IFIP SEC 2020, which came from the University of Maribor, Faculty of Electrical Engineering and Computer Science, Institute of Informatics. Without this support, it would not have been possible to organize the conference.

Last but certainly not least, we thank all the authors who submitted papers and all the conference's attendees who coped with the changing circumstances in a kind and flexible manner.

We hope you find the proceedings of IFIP SEC 2020 interesting, stimulating, and inspiring for your future research regardless of the challenging times in which the conference took place.

July 2020

Marko Hölbl Kai Rannenberg Tatjana Welzer

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# **Contents**

~-		-			
( 'h	ann	P	- A 1	tac	٠ks

Leaky Controller: Cross-VM Memory Controller Covert Channel on Multi-core Systems	3
Evaluation of Statistical Tests for Detecting Storage-Based Covert Channels	17
Thomas A. V. Sattolo and Jason Jaskolka	
IE-Cache: Counteracting Eviction-Based Cache Side-Channel Attacks Through Indirect Eviction	32
Connection Security	
Refined Detection of SSH Brute-Force Attackers Using Machine Learning Karel Hynek, Tomáš Beneš, Tomáš Čejka, and Hana Kubátová	49
MULTITLS: Secure Communication Channels with Cipher Suite Diversity Ricardo Moura, David R. Matos, Miguel L. Pardal, and Miguel Correia	64
Improving Big Data Clustering for Jamming Detection in Smart Mobility Hind Bangui, Mouzhi Ge, and Barbora Buhnova	78
Human Aspects of Security and Privacy	
Assisting Users to Create Stronger Passwords Using ContextBased MicroTraining	95
Facilitating Privacy Attitudes and Behaviors with Affective Visual Design  Agnieszka Kitkowska, Yefim Shulman, Leonardo A. Martucci, and Erik Wästlund	109
Privacy CURE: Consent Comprehension Made Easy	124

<b>Detecting</b> [	Malware	and S	oftware \	Weaknesses
--------------------	---------	-------	-----------	------------

JavaScript Malware Detection Using Locality Sensitive Hashing  Stefan Carl Peiser, Ludwig Friborg, and Riccardo Scandariato	143
RouAlign: Cross-Version Function Alignment and Routine Recovery with Graphlet Edge Embedding	155
Can Yang, Jian Liu, Mengxia Luo, Xiaorui Gong, and Baoxu Liu	
Code Between the Lines: Semantic Analysis of Android Applications Johannes Feichtner and Stefan Gruber	171
System Security	
IMShell-Dec: Pay More Attention to External Links in PowerShell RuiDong Han, Chao Yang, JianFeng Ma, Siqi Ma, YunBo Wang, and Feng Li	189
Secure Attestation of Virtualized Environments	203
Network Security and Privacy	
Security and Performance Implications of BGP Rerouting-Resistant Guard Selection Algorithms for Tor	219
Actively Probing Routes for Tor AS-Level Adversaries with RIPE Atlas Wilfried Mayer, Georg Merzdovnik, and Edgar Weippl	234
Zeek-Osquery: Host-Network Correlation for Advanced Monitoring and Intrusion Detection	248
Access Control and Authentication	
Revisiting Security Vulnerabilities in Commercial Password Managers Michael Carr and Siamak F. Shahandashti	265
Evaluation of Risk-Based Re-Authentication Methods	280
Fuzzy Vault for Behavioral Authentication System	295

Crypto Currencies	
Improvements of the Balance Discovery Attack on Lightning Network Payment Channels	313
CCBRSN: A System with High Embedding Capacity for Covert Communication in Bitcoin	324
Privacy-Friendly Monero Transaction Signing on a Hardware Wallet Dusan Klinec and Vashek Matyas	338
Privacy and Security Management	
A Matter of Life and Death: Analyzing the Security of Healthcare Networks	355
Establishing a Strong Baseline for Privacy Policy Classification	370
Cross-Platform File System Activity Monitoring and Forensics – A Semantic Approach	384
Machine Learning and Security	
A Correlation-Preserving Fingerprinting Technique for Categorical Data in Relational Databases	401
FDFtNet: Facing Off Fake Images Using Fake Detection Fine-Tuning Network	416
Escaping Backdoor Attack Detection of Deep Learning	431
Author Index	447