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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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Audun Jøsang · Lynn Fitcher ·
Janne Hagen (Eds.)


ICT Systems Security and Privacy Protection

36th IFIP TC 11 International Conference, SEC 2021
Oslo, Norway, June 22–24, 2021
Proceedings

Editors

Audun Jøsang 
University of Oslo
Oslo, Norway

Janne Hagen 
University of Oslo
Oslo, Norway

Lynn Fitcher 
Nelson Mandela University
Gqeberha, South Africa

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Preface

We are proud to bring you this collection of papers selected for presentation at the 36th IFIP International Conference on ICT Systems Security and Privacy Protection, which was organised online from the University of Oslo during 22–24 June, 2021. The 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. The proceedings of IFIP SEC 2021 contains 28 high-quality papers covering a wide range of research areas in the field of information security.

The papers submitted for review had author names, and hence were not anonymous for the reviewers. All reviewers had to indicate any conflict of interest with any particular paper, which then removed them from being eligible to review. The selection of papers was a highly challenging task: 112 received submissions were evaluated based on their significance, novelty, and technical quality. Each paper received at least three reviews, but most of them including all the accepted papers received four or more reviews by members of the Program Committee (PC). The PC members engaged in discussions over a three-week period, and the PC chairs held meetings electronically, to select the best papers. With 28 selected out of 112 submitted papers, the acceptance rate was 25%. The papers were authored by researchers from 16 different countries covering 4 continents.

We want to express our gratitude to all the contributors who helped to make IFIP SEC 2021 a success. There is a long list of people who volunteered their time and energy to put together the conference and who deserve acknowledgment. First of all, we want to thank all the authors of both the accepted and the rejected papers for trusting us by contributing their excellent work. We want to thank the members of the Program Committee and the sub-reviewers, who devoted significant hours of their time to evaluate all the submissions. We want to thank the Organizing Chair, Nils Gruschka, for the excellent job in setting up and running the technical platforms in order for the online conference to run smoothly. We also thank Steve Furnell, the Chair of IFIP TC 11, for assistance in planning the conference. Special thanks go to the keynote speaker, Ross Anderson from the University of Cambridge, UK, the recipient of the 2021 Kristian Beckman Award.

2021 marks the 60th anniversary of IFIP which was celebrated with a special panel of venerable IFIP representatives who have played important roles to ensure the continuing vitality of IFIP over the years. We would like to thank Louise Yngström, Bill Caelli, Yuko Murayama, Basie von Solms, and Leon Strous for their commitment to IFIP, and for taking part in the panel to share their memories from the past and to give us advice for the future of IFIP.

May 2021

Audun Jøsang
Lynn Fitcher
Janne Hagen

About IFIP Technical Committee 11

IFIP TC 11 was originally established in 1983 and is formally titled *Security and Privacy Protection in Information Processing Systems*. TC 11 aims to increase the trustworthiness and general confidence in information processing and to act as a forum for security and privacy protection experts and others professionally active in the field. The organisation of the IFIP SEC conference represents a key element in supporting this, and is the flagship event within the annual calendar.

Alongside the SEC events, TC 11 has a wider breadth of activities and includes 14 Working Groups, covering a broad range of cybersecurity-oriented topic areas (and in some cases run jointly with other relevant Technical Committees). The current list is as follows:

- WG 11.1: Information Security Management
- WG 11.2: Pervasive Systems Security
- WG 11.3: Data and Application Security and Privacy
- WG 11.4: Network & Distributed Systems Security
- WG 11.5: IT Assurance and Audit
- WG 11.6: Identity Management
- WG 9.6/11.7: Information Technology Mis-Use and the Law
- WG 11.8: Information Security Education
- WG 11.9: Digital Forensics
- WG 11.10: Critical Infrastructure Protection
- WG 11.11: Trust Management
- WG 11.12: Human Aspects of Information Security and Assurance
- WG 8.11/11.13: Information Systems Security Research
- WG 11.14: Secure Engineering

All of the Working Groups are volunteer-based, and aim to advance the knowledge and practice within their respective topic areas. All have international memberships, typically spanning academic researchers, industry practitioners, and other relevant professionals. Many of the Working Groups also have their own individual conference and workshop events, offering further opportunities for sharing and promoting work in addition to the SEC conference.

For further details of these activities, and how to participate in the Working Groups, please see www.ifiptc11.org.

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