# TRUST MANAGEMENT II

# 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. An umbrella organization for societies working in information processing, IFIP's aim is two-fold: to support information processing within its member countries and to encourage technology transfer to developing nations. As its mission statement clearly states,

> IFIP's mission is to be the leading, truly international, apolitical organization which encourages and assists in the development, exploitation and application of information technology for the benefit of all people.

IFIP is a non-profitmaking organization, run almost solely by 2500 volunteers. It operates through a number of technical committees, which organize events and publications. IFIP's events range from an international congress to local seminars, but the most important are:

• The IFIP World Computer Congress, held every second year;
• Open conferences;
• Working conferences.

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 small and by invitation only. Their purpose is to create an atmosphere conducive to innovation and development. Refereeing is less 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.

Any national society whose primary activity is in information may apply to become a full member of IFIP, although full membership is restricted to one society per country. Full members are entitled to vote at the annual General Assembly, National societies preferring a less committed involvement may apply for associate or corresponding membership. Associate members enjoy the same benefits as full members, but without voting rights. Corresponding members are not represented in IFIP bodies. Affiliated membership is open to non-national societies, and individual and honorary membership schemes are also offered.

# TRUST MANAGEMENT II

*Proceedings of IFIPTM 2008: Joint iTrust and
PST Conferences on Privacy, Trust Management
and Security, June 18-20, 2008, Trondheim, Norway*

*Edited by*

**Yücel Karabulut**
*SAP Research*
*USA*

**John Mitchell**
*Stanford University*
*USA*

**Peter Herrmann**
*Norwegian University of Science and Technology*
*Norway*

**Christian Damsgaard Jensen**
*Technical University of Denmark*
*Denmark*

≈ Springer

*Trust Management II*

Edited by Yücel Karabulut, John Mitchell, Peter Herrmann
and Christian Damsgaard Jensen

Printed in the United States of America.

# Preface

This volume contains the proceedings of the IFIPTM 2008, the Joint iTrust and PST Conferences on Privacy, Trust Management and Security, held in Trondheim, Norway from June 18 to June 20, 2008.

IFIPTM 2008 provides a truly global platform for the reporting of research, development, policy and practice in the interdependent areas of Privacy, Security, and Trust. Following the traditions inherited from the highly successful iTrust and PST conference series, IFIPTM 2008 focuses on trust, privacy and security from multidisciplinary perspectives. The conference is an arena for discussion about relevant problems from both research and practice in the areas of academia, business, and government.

IFIPTM 2008 is an open IFIP conference, which only accepts contributed papers, so all papers in these proceedings have passed strict peer review. The program of the conference features both theoretical research papers and reports of real world case studies. IFIPTM 2008 received 62 submissions. The program committee selected 22 papers for presentation and inclusion in the proceedings. In addition, the program and the proceedings include 3 demo descriptions.

The highlights of IFIPTM 2008 include invited talks and tutorials by industrial and academic experts in the fields of trust management, privacy and security, including Jon Bing and Michael Steiner.

Running of an international conference requires an immense effort from all parties involved. We would like to thank the program committee members and several other external referees for having provided timely and in-depth reviews of the submitted papers. In particular, we appreciate the logistics support provided by the Norwegian University of Science and Technology (NTNU).

We are grateful to the Norwegian University of Science and Technology (NTNU), the Research Council of Norway (NFR) and SAP Research for their financial support for IFIPTM 2008.

We hope you enjoy the proceedings and the conference.


June 2008                                                                 Yücel Karabulut
                                                                              John Mitchell
                                                                          Peter Herrmann
                                                          Christian Damsgaard Jensen

# Organization

## Executive Committee

### General Chairs

Peter Herrmann
Christian Damsgaard Jensen

### Program Chairs

Yücel Karabulut
John Mitchell

### Workshop and Tutorial Chairs

Elisa Bertino
Dan Lin

### Demonstration Chair

Audun Jøsang

### Local Organization Chair

Frank Alexander Kraemer

# Program Committee

Tuomas Aura
Adrian Baldwin
Matt Bishop
Anupam Datta
Mourad Debbai
Theo Dimitrakos
Dag Elgesem
Sandro Etalle
Rino Falcone
Ali Ghorbani
Valérie Issarny
Sushil Jajodia
Dawn Jutla
Günther Karjoth
Angelos Keromytis
Dogan Kesdogan
Larry Korba
Larry Koved
Mark Kramer
Ninghui Li
Stephane Lo Presti
Javier Lopez
Stephen Marsh
Fabio Martinelli
Fabio Massacci
Deborah McGuinnes
Ali Miri
Mogens Nielsen
Babak Sadighi
Pierangela Samarati
Ravi Sandhu
Kent Seamons
Jean-Marc Seigneur
Vitaly Shmatikov
Jessica Staddon
Ketil Stølen
Vipin Swarup
Sotirios Terzis
David Townsend
Julien Vayssiere
Javier Garcia Villalba
William H. Winsborough
Marianne Winslett

# External Reviewers

Adam Barth
Matthew Burnside
Roberto Speicys Cardoso
Marcin Czenko
Heidi Dahl
Sabrina De Capitani di Vimercati
Jeroen Doumen
Tariq Ehsan Elahi
Deepak Garg
Ragib Hasan
Maritza Jonhson
Adam Lee
Soumyadeb Mitra
Marinella Petrocchi
Atle Refsdal
Ludwig Seitz
Bjørnar Solhaug
Emmanuele Zambon

# Table of Contents

## Full Papers

# Demonstration Overviews