Norbert Pohlmann | Helmut Reimer | Wolfgang Schneider (Eds.)

ISSE 2009 Securing Electronic Business Processes

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Highlights of the Information Security Solutions Europe 2009 Conference

With 73 illustrations

Bibliographic information published by the Deutsche Nationalbibliothek
The Deutsche Nationalbibliothek lists this publication in the Deutsche Nationalbibliografie; detailed bibliographic data are available in the Internet at http://dnb.d-nb.de.

The editors are grateful to Professor Dr. Patrick Horster for granting permission to use his layout for the following contributions.

1st Edition 2010

Editorial Office: Christel Roß | Andrea Broßler

Vieweg+Teubner is part of the specialist publishing group Springer Science+Business Media.
www.viewegteubner.de

Cover design: KünkelLopka Medienentwicklung, Heidelberg
Typesetting: Oliver Reimer, Jena
Printing company: STRAUSS GMBH, Mörlenbach
Printed on acid-free paper
Printed in Germany

ISBN 978-3-8348-0958-2

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Preface

Dear Readers,

ENISA has once again co-organized the ISSE 2009, Information Security Solutions Europe Conference 2009 together with eema, TeleTrusT, the 'Identity 2009', and the city of The Hague.

The purpose of the ISSE has been to support the development of a European information security culture throughout the years. This goal is more than ever valid for the future of the Internet, with its ever increasing demand for cross-border framework of trustworthy IT applications for citizens, industry and administration.

The ISSE is designed to inform ICT professionals, key policy makers and industry leaders on the latest developments and trends in technology, as well as best practices. ENISA is highly committed to these targets, as the Agency is pursuing a strategy of mitigating risks through awareness, studies, reports and Position Papers on current NIS matters.

In this quest, we assist and advise the European Commission, Member States, and the business community in the field of Network and Information Security.

The security of communication networks and information systems is of increasing concern, in particular for the economy of Europe. Clearly, cooperation is key to address today's –and tomorrow's -complex information security challenges. Only by working more closely together, can we generate new strategies to manage these problems. In bringing together the wealth of industry knowledge, information and research in Europe (as well as worldwide) the ISSE 2009 has been an event that we could not miss.

The success of this event is based on the unique backgrounds of its 400 participants: governments, academia and other key stakeholders. This line up guarantees an impressive blend of ideas from actors in different sectors of society, thus generating new ways of thinking.

The ISSE is a platform for open, vivid policy and technical debates in a non commercial setting. Through new insights and sharing of different perspectives, experiences and solutions on current topics of IT security, the independent and vast nature of the event guarantees highly relevant results. This year, the main focus is cutting edge security and related issues, like Large Scale Public Applications, Security Management & Economics of Security, Cloud Computing and Awareness Raising, selected by worldwide security specialists.

This edition contains a selection of some key topics presented at this year's conference. As such, this compilation will serve as a valuable point of reference for IT security industry professionals. We hope that you will find it a useful, professional read.

Andrea Pirotti, Executive Director, ENISA

About this Book

The Information Security Solutions Europe Conference (ISSE) was started in 1999 by eema and TeleTrusT with the support of the European Commission and the German Federal Ministry of Technology and Economics. Today the annual conference is a fixed event in every IT security professional's calendar.

The integration of security in IT applications was initially driven only by the actual security issues considered important by experts in the field; currently, however, the economic aspects of the corresponding solutions are the most important factor in deciding their success. ISSE offers a suitable podium for the discussion of the relationship between these considerations and for the presentation of the practical implementation of concepts with their technical, organisational and economic parameters.

From the beginning ISSE has been carefully prepared. The organisers succeeded in giving the conference a profile that combines a scientifically sophisticated and interdisciplinary discussion of IT security solutions while presenting pragmatic approaches for overcoming current IT security problems.

An enduring documentation of the presentations given at the conference which is available to every interested person thus became important. This year sees the publication of the seventh ISSE book – another mark of the event's success – and with about 35 carefully edited papers it bears witness to the quality of the conference.

An international programme committee is responsible for the selection of the conference contributions and the composition of the programme:

- **Jeremy Beale, ENISA**
- **Gunter Bitz, SAP** (Germany)
- **Ronny Bjones, Microsoft** (Belgium)
- **Lucas Cardholm, Ernst&Young** (Sweden)
- **Roger Dean, eema** (United Kingdom)
- **Jan De Clercq, HP** (Belgium)
- **Marijke De Soete, Security4Biz** (Belgium)
- **Jos Dumortier, KU Leuven** (Belgium)
- **Walter Fumy, Bundesdruckerei** (Germany)
- **Robert Garskamp, Everett** (The Netherlands)
- **Riccardo Genghini, S.N.G.** (Italy)
- **John Hermans, KPMG** (The Netherlands)
- **Jeremy Hilton, Cardiff University** (United Kingdom)
- **Willem Jonkers, Philips Research** (The Netherlands)
- **Francisco Jordan, Safelayer** (Spain)

- **Frank Jorissen, McAfee** (Belgium)
- **Jaap Kuipers, DigiNotar** (The Netherlands)
- **Matt Landrock, Cryptomathic** (Denmark)
- **Madeleine McLaggan-van Roon, Dutch Data Protection Authority** (The Netherlands)
- **Norbert Pohlmann (Chairman), University of Applied Sciences Gelsenkirchen** (Germany)
- **Steve Purser, ENISA**
- **Bart Preneel, KU Leuven** (Belgium)
- **Helmut Reimer, TeleTrusT** (Germany)
- **Joachim Rieß, Daimler** (Germany)
- **Wolfgang Schneider, Fraunhofer Institute SIT** (Germany)
- **Jon Shamah, EJ Consultants** (United Kingdom)
- **Robert Temple, BT** (United Kingdom)

The editors have endeavoured to allocate the contributions in these proceedings – which differ from the structure of the conference programme – to topic areas which cover the interests of the readers.

Norbert Pohlmann *Helmut Reimer* *Wolfgang Schneider*

eema (www.eema.org)

For 22 years, eema has been Europe's leading independent, non-profit e-Identity & Security association, working with its European members, governmental bodies, standards organisations and interoperability initiatives throughout Europe to further e-Business and legislation.

eema's remit is to educate and inform over 1,500 Member contacts on the latest developments and technologies, at the same time enabling Members of the association to compare views and ideas. The work produced by the association with its Members (projects, papers, seminars, tutorials and reports etc) is funded by both membership subscriptions and revenue generated through fee-paying events. All of the information generated by eema and its members is available to other members free of charge.

Examples of recent EEMA events include The European e-ID interoperability conference in Brussels (Featuring STORK, PEPPOL & epSOS) and The European e-Identity Management Conference in London (Featuring the 2nd STORK Industry Group Meeting)

EEMA and its members are also involved in many European funded projects including STORK, ICEcom and ETICA

Any organisation involved in e-Identity or Security (usually of a global or European nature) can become a Member of eema, and any employee of that organisation is then able to participate in eema activities. Examples of organisations taking advantage of eema membership are Volvo, Hoffman la Roche, KPMG, Deloitte, ING, Novartis, Metropolitan Police, TOTAL, PGP, McAfee, Adobe, Magyar Telecom Rt, National Communications Authority, Hungary, Microsoft, HP, and the Norwegian Government Administration Services to name but a few.

Visit www.eema.org for more information or contact the association on +44 1386 793028 or at info@eema.org

TeleTrusT Deutschland e.V. (www.teletrust.de)

TeleTrusT Deutschland e.V. was founded in 1989 as a non profit association in Germany promoting the trustworthiness of information and communication technology in open systems environments.
Today, TeleTrusT counts 100 institutional members. Within the last 20 years TeleTrusT evolved to a well known and highly regarded competence network for applied cryptography and biometrics.
In various TeleTrusT working groups ICT-security experts, users and interested parties meet each other in frequent workshops, round-tables and expert talks. The activities focus on reliable and trustworthy solutions complying with international standards, laws and statutory requirements.
TeleTrusT is keen to promote the acceptance of solutions supporting identification, authentification and signature (IAS) schemes in the electronic business and its processes.
TeleTrusT facilitates the information and knowledge exchange between vendors, users and authorities. Subsequently, innovative ICT-security solutions can enter the market more quickly and effectively. TeleTrusT aims on standard compliant solutions in an interoperable scheme.
Keeping in mind the raising importance of the European security market, TeleTrusT seeks the co-operation with European and international organisations and authorities with similar objectives.
Thus, the European Security Conference ISSE is being organized in collaboration with eema, ENISA and the Municipality of The Hague this year.

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Welcome

It is an honor for the city of The Hague and me to welcome the conference of ISSE in our International City of Peace and Justice. Tens of thousands of people in The Hague are working together towards making the world a better place. It is a unique concentration of international expertise and knowledge. The Hague is the city of the Peace Palace, the International Court of Justice, Eurojust, the International Criminal Court, the Organisation for the Prohibition of Chemical Weapons, the International Criminal Tribunal for the former Yugoslavia and Europol. And last nut not least we are making the dream of a sustainable city coming true in projects like the Seawater Power Station.

The Hague forms likewise the heart of Dutch democracy. The most striking building on 'Het Binnenhof' is the Knights' Hall, built in the 13th and 14th centuries as the castle for the Earls of Holland. It is the building where the decision was made to build the first modern republic! So history is in the air in this city, but the future also. On the The Hague historical grounds we will discuss modern developments.

And those contemporary developments are – as we all know – severe: the economical crisis grips us all to think about the coming weeks, months and years to develop new strategies. And that is why cities are important. Here the key-issues of the web 2.0 are developed and proven in the practice of all day living activities in the metropolitan areas. That is why in this conference we are discussing issues in a city like The Hague where security plays an important role in everyday life. The Knowledge Society will play a role in the sustainability of the society as a whole. And ICT-security of all the essential economic features is a sine-qua-non for the coming recovery and revival of the Information Society!

ISSE 2009 will in our view serve as the building stone of a scenario to re-establishment of a secure and sustainable society. We hope that the topics discussed during the event will serve as a reference for the work of the organisations involved in this interesting field.

Frits Huffnagel

Vice Mayor for Citymarketing, International Affaires and ICT