Lecture Notes in Computer Science 6027

*Commenced Publication in 1973*
Founding and Former Series Editors:
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# Critical Information Infrastructures Security

4th International Workshop, CRITIS 2009
Bonn, Germany, September 30 – October 2, 2009
Revised Papers

Springer

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Library of Congress Control Number: 2010930333

CR Subject Classification (1998): B.4.5, C.2, K.6.5, D.4.6, J.1

LNCS Sublibrary: SL 4 – Security and Cryptology

ISSN 0302-9743
ISBN-10 3-642-14378-4 Springer Berlin Heidelberg New York
ISBN-13 978-3-642-14378-6 Springer Berlin Heidelberg New York



Typesetting: Camera-ready by author, data conversion by Scientific Publishing Services, Chennai, India
Printed on acid-free paper 06/3180

# Preface

This volume contains the proceedings of the 4th International Workshop on Critical Information Infrastructures Security (CRITIS 2009). The workshop was held from September 30 to October 2 in the Günnewig Hotel Bristol in Bonn, Germany. The workshop was organized by the Fraunhofer Institute for Intelligent Analysis and Information Systems (IAIS), Sankt Augustin, Germany.

CRITIS 2009 continued the series of successful CRITIS Workshops. Companies, research institutions, and governmental organizations from all main areas of critical infrastructures took an active part in supporting CRITIS and we found CRITIS 2009 both exciting and informative. The selected papers addressed a range of key issues and demonstrated the ubiquity and global importance of information infrastructures. Each paper had at least three independent technical reviews and we accepted 13 full papers out of 34 submissions.

We were very fortunate in having a range of invited speakers that covered policy, research and industry perspectives. James Smith from Los Alamos National Laboratory addressed the challenges and achievements in their work on "Large-Scale Modeling and Simulation of Critical Infrastructure." Orestis Terzidis, Vice President SAP AG, talked on the "The Internet for Energy: Perspectives and Challenges." Continuing with the energy theme, Alla Heidenreich, from SIEMENS AG, Corporate Research and Technologies (Germany) provided her insights on the "Secure ICT Infrastructure for the Future Power Grid."

Critical infrastructure protection is an area where an effective private–public partnership is required. A government perspective was provided by Michael Pilgermann, German Ministry of the Interior, who talked on German strategy regarding CIIP. Another important perspective on the partnership was provided by Paul Nicholas, Director of Global Security Strategy, Trustworthy Computing, Microsoft Corporation, who discussed "Reliance, Risk and Resiliency and the Role of Public Private Partnerships" and the changes required in how governments and industry partners understand risk, improve deterrence, respond to incidents and promulgate trust across the ICT ecosystems.

A successful workshop relies on many people. We would like to express our gratitude to all the members of the IPC who provided us with over three reviews per paper and were crucial to establishing the technical quality of the event. In addition the Local Arrangements Chairs, Rüdiger Klein and Uwe Beyer, of Fraunhofer IAIS, Germany were instrumental in providing the critical infrastructure for the workshop itself. We appreciated the overall guidance from our General Chairs Stefan Wrobel, Fraunhofer IAIS and University Bonn, Germany and Costas Lambrinoudakis, University of the Aegean, Greece and the input from the Sponsorship Chair, Bernhard Hämmerli, Hochschule Luzern, Switzerland.

In times of a global economic crisis, the Sponsorship Chair had a difficult task to perform. We are happy that we were able to win the companies IABG and Elsevier, as well as the DIESIS project, as official sponsors of CRITIS 2009 and that we received ideal support from IFIP, JRC, and the German Federal Office for Information Security, too. This support is gratefully acknowledged, as is the effort of the Sponsorship Chair Bernhard Hämmerli.

CRITIS 2009 was a truly international event, attracting 67 authors and participants from all over the world, though – not surprisingly – Europeans had the majority. Interestingly, C(I)IP is not exclusively a concern of developed countries. A number of papers from developing countries were presented at CRITIS 2009. For instance, a case study from South Africa demonstrated an effective method for assessing C(I)IP possibilities particularly for developing countries with less developed infrastructures and smaller budgets for their protection.

We very much valued the variety of talks and discussions at CRITIS 2009 and hope that these proceedings provide a lasting insight into the contribution of the workshop to understanding critical information infrastructures.

February 2010

Erich Rome
Robin Bloomfield

# CRITIS 2009

Fourth International Workshop on
Critical Information Infrastructures Security

Günnewig Hotel Bristol
Bonn, Germany
September 30 – October 2, 2009

*Organized by*
Fraunhofer Institute for Intelligent Analysis and Information Sytems (IAIS)

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