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# Managing the Dynamics of Networks and Services

5th International Conference  
on Autonomous Infrastructure, Management,  
and Security, AIMS 2011  
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Proceedings

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# Preface

The International Conference on Autonomous Infrastructure, Management and Security (AIMS 2011) was a single-track event integrating normal conference paper sessions, tutorials, keynotes, and a PhD student workshop into a highly interactive event. One of the goals of AIMS was to look beyond borders and to stimulate the exchange of ideas across different communities and among PhD students.

AIMS 2011—which took place during June 13–17, 2011, in Nancy, France—was hosted by INRIA Nancy Grand-Est and by ESIAL (Engineering School in Computer Science from the University of Nancy 1).

AIMS 2011 constituted the fifth edition of a conference series on management and security aspects of distributed and autonomous systems, after successful events in Oslo, Norway 2007, Bremen, Germany 2008, Enschede, The Netherlands 2009, and Zurich, Switzerland 2010. This year, AIMS 2011 focused on the theme of “Managing the Dynamics of Networks and Services.”

AIMS 2011 began with 1.5 days of two courses and labs (summer school), which offered hands-on learning experience in network and service management topics and which required attendees to work in practical on-site courses combined with preceding short tutorial-like teaching sessions. The objective of the first course entitled “Using Distributed Computing Techniques and Tools to Help Network Forensics” was to show the current challenges in network analysis. The course was separated into two parts: the theoretical/engineering aspects of network forensics and a hands-on analysis lab with network data collected in honeypots and network security sensors. The second course entitled “Cloud Computing for Scalable Network Management” presented the general functioning of Hadoop, the Hadoop distributed file system, and the main paradigm behind Hadoop called Map/Reduce.

The AIMS 2011 conference continued with a keynote presentation on “IP Networks Monitoring with Netflow,” delivered by Guillaume Lambert and Jean Monné from Orange Labs, France.

The four technical sessions, covering security, policy management, support technologies, and peer-to-peer and aggregation schemes, included a total of 11 full papers, which were selected after a thorough reviewing process. The majority of papers received four independent reviews and no paper had under three reviews.

The AIMS PhD workshop was a venue for doctoral students to present and discuss their research ideas as well as, most importantly, to obtain feedback from the AIMS audience about their planned PhD research work. This year, the workshop was organized into two technical sessions, where 11 PhD investigations were presented and discussed. These PhD papers included in this volume describe the current state of these investigations, including their research

problem statements, investigation approaches, and outlines of results achieved so far. They were also selected through a rigorous review process, with at least three reviews per paper.

The editors would like to thank the many people who helped make AIMS 2011 such a high-quality and successful event. Firstly, the great review work performed by the members of the AIMS TPC and the PhD Workshop TPC and additional reviewers are highly acknowledged. Further thanks go to all authors who submitted their contributions to AIMS 2011. Many thanks also go to the tutorial and keynote speakers, namely, Alexandre Dulaunoy, Jérôme François, Guillaume Lambert, and Jean Monné.

Finally, the editors would like to extend their thanks to the Springer team, namely, Anna Kramer, for the smooth cooperation on finalizing these proceedings. Additionally, special thanks go to the local organizers for enabling the logistics and hosting the AIMS 2011 conference.

April 2011

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