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# Service Availability

5th International Service Availability Symposium, ISAS 2008  
Tokyo, Japan, May 19-21, 2008  
Proceedings

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# General Chair's Message

On behalf of the Organizing Committee, I welcome you to the proceedings of the 5th International Service Availability Symposium (ISAS2008) held in the Research Center for Advanced Science and Technology (RCAST), University of Tokyo, the youngest research institute of the oldest university in Japan.

Service availability is a vital attribute of networked computing systems for the information society to make people confident in being able to trust the services provided in everyday life and societal activities. The objective of the symposium is to bring together researchers and practitioners from different “service” related areas in both industry and academia to discuss various aspects of service availability toward the goal of implementing dependable information societies. The unique tradition of the ISAS series promoting a strong partnership between industry and academia enabled us to organize an extremely high-quality and attractive program and to provide participants with an invaluable forum to achieve our goal. The “Komaba Research Campus” in the University of Tokyo offers an excellent location for this symposium at the heart of Tokyo, one of the largest cosmopolitan cities in the world.

I would like to thank the PC Co-chairs, Fumihiro Maruyama and András Pataricza, as well as all the PC members, including András Kővi, for their excellent job through the entire process of program organization. My special thanks go to Roberto Baldoni, Professor of University of Rome, and Hiroshi Maruyama, Director of IBM Tokyo Research Laboratory, for their kind acceptance to give interesting and useful keynote talks. I also express my sincere gratitude to the two internationally renowned professors, Mirosław Malek from the Humboldt University, Germany and Kishor Trivedi from Duke University, USA, for voluntarily presenting excellent tutorials to all the participants.

I am especially indebted to Manfred Reitenspieß, the ISAS Steering Committee Chair and the Publicity Chair of this symposium, and all the Steering Committee members including Tadashi Dohi for their constructive suggestions and invaluable advice for the symposium organization.

I am deeply grateful to the Organizing Committee members, Hiroshi Nakamura (Finance Chair), Masashi Imai (Local Arrangement Chair), Masaaki Kondo (Registration Chair), Hiroyuki Okamura (Web Master) and Kazuto Kamiyama, for their dedicated volunteer services that made the symposium possible.

Last but not least, let me express my sincere appreciation to the “Inoue Foundation for Science” and the “International Communications Foundation” for their generous support in organizing the symposium successfully.

## Program Chairs' Message

ISAS, the International Service Availability Symposium series, took place for the fifth time. ISAS 2008, like each of its predecessors, strongly relied on the tradition of bringing together academic and industrial experts active in the field of service availability.

As services begin to influence more and more our everyday life, their availability becomes a vital factor of society and for business. This year the broad spectrum of submitted papers represented well a continuous trend in searching for holistic views and solutions in assuring the correct functioning of the service-based information backbone for the good of our society and economy.

Continuing the tradition established by the past symposia, ISAS adhered to the core, almost classical, topics while, at the same time, trying to accommodate trends and new themes. ISAS is traditionally open to innovative technical and scientific ideas having a potential future impact on the availability of services.

This year the conference received a total of 28 submissions, each of which was reviewed by at least 3 Program Committee (PC) members. Subsequently, an electronic discussion was carried out among the PC members until we reached a consensus. As result of the selection process, 12 full papers are included in this volume.

In order to promote an important dialogue primarily between industry and academia, several complementary activities were initiated. Papers carrying an important message for the industry but still in the elaboration phase were invited to be presented as short papers.

The program was complemented by two important keynote presentations by Roberto Baldoni and Hiroshi Maruyama.

In addition to the presentations, a panel of the activities of the Service Availability Forum served as a bridge between the academic world, industrial application development and solution providers. Experiences related to service availability enabling technologies were presented in the form of an Industrial Demo Session. The academic foundations of service availability were presented during two excellent tutorials held by Kishor Trivedi and Miroslaw Malek.

Finally, a special session was devoted to an important open research framework entitled Service Innovation Research Initiative.

The organizers express their gratitude to all who provided continuous support in organizing the program. Special thanks should be given to András Kővi, Manfred Reitenspieß, Tadashi Dohi, Miroslaw Malek and Bratislav Milić for their help in organizing the review process, collecting the papers, editing this volume and publicizing this event, as well as to our General Chair, Takashi Nanya, for his continuous support.

Finally, we strongly believe that this year's conference continued the traditions of having a high scientific and technical quality as well as an extensive dialogue on key issues of service availability.

May 2008

Fumihiro Maruyama  
András Pataricza

# Organization

ISAS 2008 was sponsored by the Research Center for Advanced Science and Technology (RCAST), University of Tokyo and Service Availability Forum, in cooperation with IEICE TC on Dependable Computing and GI TC on Dependability and Fault Tolerance.

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