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Preface

Several developments are expected to change the nature and affect the operation of enterprises in the near future. These developments are not new, and their influence when considered in isolation may not be decisive, but combined they represent important challenges as well as opportunities. Globalization, as one of the most important drivers of modern times, continues to influence enterprises and makes the boundaries for enterprise operation increasingly disappear. Constant and rapid change in technological capabilities, consumer demands, and legal/regulatory constraints push enterprises to become more agile and adaptive. The ability to create and offer value-added services by anyone to anyone has blurred the roles of consumer and producer, and of employee and employer. One conclusion to be drawn from these developments is that the success of an enterprise more and more depends on its ability to interoperate with other enterprises, of any size and in any place. Enterprises have to function in dynamic networks, with value being created in both directions in order to stay competitive and achieve their business goals.

Collaboration, interoperability, and services are essential for the networked enterprises of the future. A better understanding of these concepts and their relationships will help to face the challenges and exploit the opportunities ahead. In addition, it will foster appropriate architectural frameworks and IT solutions. For example, the technical development of the Future Internet should not only be driven by problems of the current Internet but also be guided and evaluated from the enterprise perspective regarding collaboration, interoperability, and services. This will ensure that the Future Internet really aims at empowering enterprises to create business value in competition and cooperation with other enterprises, based on relevant knowledge about each other and the market. Several enterprise-relevant aspects should be grounded in the Future Internet, meaning that collaboration is supported by IT services (to find information) for connecting partners and binding resources according to enterprise-defined performance indicators on top of a general interoperability infrastructure. Such IT services may require integration of physical sensing, business intelligence, and knowledge sharing

IWEI is an International IFIP Working Conference covering all aspects of enterprise interoperability with the purpose of achieving flexible cross-organizational collaboration through integrated support at business and technical levels. It provides a forum for discussing ideas and results among both researchers and practitioners. Contributions to the following areas are highlighted: scientific foundations for specifying, analyzing, and validating interoperability solutions; architectural frameworks for addressing interoperability challenges from different viewpoints

and at different levels of abstraction; maturity models to evaluate and rank interoperability solutions with respect to distinguished quality criteria; and practical solutions and tools that can be applied to interoperability problems to date.

This year's IWEI – IWEI 2012 – was held during September 6–7, 2012, in Harbin, China, following previous events in Stockholm, Sweden (2011), Valencia, Spain (2009), and Munich, Germany (2008). The theme of IWEI 2012 was "Collaboration, Interoperability and Services for Networked Enterprises," thus especially soliciting submissions and discussions related to the three previously mentioned interrelated areas for enterprise interoperability.

IWEI 2012 was organized by the IFIP Working Group 5.8 on Enterprise Interoperability in co-operation with InterOP-VLab. The objective of IFIP WG5.8 is to advance and disseminate research and development results in the area of enterprise interoperability. IWEI provides an excellent platform to discuss the ideas that have emerged from IFIP WG5.8 meetings, or, reversely, to transfer issues identified at the workshop to the IFIP community for further contemplation and investigation.

The proceedings of IWEI 2012 are contained in this volume. In total 14 full papers and three short papers were selected for oral presentation and publication. The selection was based on a thorough review process, in which each paper was reviewed by at least three experts in the field. The papers are representative of the current research activities in the area of enterprise interoperability. The papers cover a wide spectrum of enterprise interoperability issues, ranging from foundational theories, frameworks, architectures, methods and guidelines to applications and case studies.

The proceedings also include the abstracts of the invited talks of our two renowned keynote speakers: Sergio Gusmeroli (Director of TXT Labs Corporate Research Unit) and Lei Qin (Executive of Cloud Labs and Smarter Commerce Service Delivery, IBM China Development Laboratory).

We would like to take this opportunity to express our gratitude to all those who contributed to the IWEI 2012 working conference. We thank the authors for submitting content, which resulted in valuable information exchange and stimulating discussions; we thank the reviewers for providing useful feedback to the submitted content, which undoubtedly helped the authors to improve their work; and we thank the attendants for expressing interest in the content and initiating relevant discussions. We are indebted to IFIP TC5 as well as InterOP-VLab for recognizing the importance of enterprise interoperability as a research area with high economic impact, and acting accordingly with the establishment of WG5.8. Finally, we are grateful to HIT, the Harbin Institute of Technology, for hosting the working conference.

June 2012

Marten van Sinderen
Pontus Johnson

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IWEI 2011 was organized by IFIP Working Group 5.8 on Enterprise Interoperability, in cooperation with InterOP VLab.

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