

Preface

Enterprise interoperability is a key factor for the success of collaborative organizations. It determines to what extent companies can make use of each other's unique capabilities and so create added business value through synergetic effects. It also determines the agility of a company in that it enables the company to leave or change an existing collaboration structure and establish collaboration with new partners efficiently.

Enterprise interoperability transcends different functional levels and has many concerns that need to be considered. Moreover, all phases of the enterprise interoperability lifecycle must be anticipated, supported, and maintained by business partners in order to be able to fully exploit the potential of collaboration. Enterprise interoperability is thus an essential requirement for companies, but because of its scope and complexity, it is not easily achieved.

The design and engineering of enterprise interoperability is challenging in an increasingly interoperation-demanding economy and society. Enterprises operate in dynamic contexts with changing demands, market opportunities, business partners, and technology solutions. Enterprise interoperability therefore cannot be solved alone by developing and adopting a static set of standards. Enterprise interoperability solutions for future enterprise networks should be able to negotiate standards and standard options, have built-in mechanisms to cope with changing partners, aligning interoperability settings with partners' business goals, and be context-aware and self-adaptive in case of long-running enterprise interoperations. Enterprise interoperability engineering addresses these issues, starting from existing definitions and frameworks that have been developed and tested in previous research and projects.

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 organizational, 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 2015 – was held during May 28–29, 2015, in Nîmes, France, following previous events in Enschede, The Netherlands (2013), Harbin, China (2012), Stockholm, Sweden (2011), Valencia, Spain (2009), and Munich, Germany (2008). The theme of IWEI 2015 is “*From Enterprise Interoperability Modelling and Analysis to Enterprise Interoperability Engineering*,” thus especially soliciting submissions and discussions related to enterprise interoperability engineering issues in dynamic enterprise networks.

IWEI 2015 was organized by the IFIP Working Group 5.8 on Enterprise Interoperability in cooperation with INTEROP-VLab and PGSO (Pole Grand sud-Ouest) from 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, and, reversely, to transfer issues identified at the conference to the IFIP community for further contemplation and investigation.

The proceedings of IWEI 2015 are contained in this volume. Out of 20 submissions, a total of 9 full research papers, 4 short papers, and 2 industrial papers were selected for oral presentation and publication. The selection was based on a thorough review process, in which each paper was reviewed by three experts in the field. The papers are representative of the current research activities in the area of enterprise interoperability. They cover a wide spectrum of enterprise interoperability issues, ranging from foundational theories, frameworks, architectures, methods and guidelines to applications and case studies.

Two keynotes were given by Dr. Sergio Gusmeroli, Research and Innovation Director of TXT in Italy, and Prof. Henrique Martins, CEO of SMMS – Shared Services of the Ministry of Health in Portugal. Dr. Gusmeroli addressed the application of enterprise interoperability methods and tools to manufacturing service ecosystems. Professor Martins talked about the phenomenon of information explosion and the challenge it brings to enterprise interoperability. He discussed the European eHealth Network and its associated eHealth Interoperability Framework.

We would like to take this opportunity to express our gratitude to all those who contributed to the IWEI 2015 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 the École des Mines d'Alès (EMA) for hosting the working conference.

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