Enterprise Interoperability
Preface

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Over the past 20 years, the business world has been changing significantly, and concepts of cross-enterprise collaboration have been promoted to the center of enterprise strategy. For some organizations, doing business globally has become critical to their survival; others discover new opportunities by focusing their business on a local setting. Not only large organizations set up cooperation agreements with other enterprises, but also SMEs are combining forces to compete jointly in the market. Nowadays, the competitiveness of an enterprise is largely determined by its ability to seamlessly interoperable with others.

Interoperability in the context of enterprises and enterprise applications can be defined as the ability of a system or a product to work seamlessly with other systems or products without requiring special effort from the customer or user. The possibility to interact and exchange information internally and with external organisations is a key issue in the enterprise sector. It is fundamental in order to produce goods and services quickly, at lower cost, while maintaining higher levels of quality and customisation. Interoperability is considered to be achieved if the interaction can, at least, take place at the three levels: data, applications and business enterprise through the architecture of the enterprise model and taking into account the semantics issues. It is not only a problem of software and IT technologies. It implies support of communication and transactions between different organisations that must be based on shared process models and business references.

This book establishes the proceedings of the Second International Conference on Interoperability for Enterprise Software and Applications (I-ESA 06), which

These two programmes were the results of several initiatives launched in 2000 by the European Commission, where an expert group had been set up to identify challenges and approaches relating to the development of interoperability of enterprise applications in Europe, and to make propositions to the E.C. to launch projects to sustainably advance enterprise interoperability. In 2002 a Thematic Network IDEAS (Interoperability Development for Enterprise Applications and Software – Roadmaps), coordinated by University Bordeaux 1, was launched, the project manager being Guy Doumeingts. IDEAS produced an influential Roadmap on Enterprise Interoperability. INTEROP, ATHENA and other projects in the FP6 were built on the content of the roadmap.

The originality of the approach proposed by IDEAS was to find solutions to problems of Enterprise Interoperability by combining three main research domains: Enterprise Modelling (EM) dealing with the representation of the inter-networked organisation to establish interoperability requirements and to support the implementation of solutions; Architecture & Platform (A&P) defining the implementation solutions to achieve interoperability; Ontologies (ON) addressing the semantics necessary to assure interoperability.

I-ESA’06 is the successor and was built on the success of the INTEROP-ESA conference 2005, held in Geneva on February 2005. The objective of I-ESA is to bring together the world's leading researchers and practitioners in the area of Enterprise Interoperability and e-Business and to enable a fruitful exchange of the participants’ vision, research and experiences.

I-ESA’06 was held from March 22nd to 24th (colocated with eGovInterop), 2006. 20th and 21st were devoted to the pre-conference. 47 regular papers were presented in 16 sessions and 29 posters in five sessions. These 24 sessions were held in three parallel tracks.

The programme proposed several key notes presented by high-level renowned experts from industry and academia:

- Dr. Gerald Santucci, European Commission, EU,
- Dr. Steve McGibbon, Microsoft, UK,
- Dr. Michael Brodie, Verizon Information Technology, US,
- Dr. Mark Schenecker, SAP, US,
- Ludger Garg, Siemens Transportation Systems, DE,
- Man-Sze Li, IC Focus, GB and Prof. Jean-Paul Bourrières, Univ. Bordeaux 1, FR,
- Hubert Tardieu, Atos Origin, FR.

During the 20th and 21st, the pre-conference was held featuring:
• a full-day doctoral symposium containing 15 papers,
• three tutorials on model-driven interoperability with SOA and agents, Use of enterprise models to master collaboration challenge; and AKME – Active modelling knowledge of enterprises.
• three full-day scientific workshops:
  - IFAC TC5.3 workshop Enterprise Integration, Interoperability and Networking (EI2N'2006),
  - Web Services and Interoperability (WSI'2006),
• two advanced full-day workshops:
  - Interoperability challenges for SMEs: this event co-sponsored by INTEROP NoE and ATHENA IP concerned a very important topic: the debate were of high quality,
  - Enterprise Interoperability Roadmap, organised, by the European Commission. This session was well attended by more than 80 participants. The subject was the elaboration of the Roadmap in Enterprise Interoperability for the future. The result of this debate with the contribution of Europe, North-America, Japan, China and Australia representatives will serve as a base for the next 7th Research and Development Framework Programme of the European Commission in this domain.
• the 15th anniversary celebration of China/Europe collaboration in the area Integration and Interoperability.

Having attracted 250 attendees, the I-ESA’06 conference demonstrated the importance and prominent role of Enterprise Interoperability for the competitiveness of enterprises. The 250 participants proved an increasing interest for this domain.

The next conference, I-ESA’07 will be held in March 26th-30th in Funchal, Madeira Island, Portugal, organised by the Institute UNINOVA, http://www.i-esa.org/i-esah2007.

We believe that this thoroughly prepared volume is of particular value to all readers interested in key topics and most recent developments in the very exciting field of enterprise interoperability research.

Bordeaux, 
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