Chapter 1

Efficient and Interoperable E-Business Based on Frameworks, Standards and Protocols: An Introduction

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ABSTRACT

The reality of E-Business today means E-Commerce, E-Collaboration, E-Government, E-Procurement, Social Networks, et cetera. Independent of the selected area E-Business will only work if interoperability in all its facets and visible E-benefits are ensured. This includes common agreements about the targets, objects, and rules of the E-Business, concepts, frameworks, and models that are well understood, accepted, and provide additional E-Benefits for all participating partners. In addition, ICT systems, tools, and other instruments must be compliant with political and legal restrictions and support the work properly and efficiently, and last but not least, ensure trust and minimize E-Business risks. With the rise of the Internet, its online-service, manifold techniques, and E-Business applications, people expected quick, usable, and efficient solutions for these problems. Really, many profitable and well-working individual solutions on the market may be found. But there still is a gap in looking for generally well-working interoperability solutions like standards, harmonized E-Business legal regulations, easy to understand, and useable ICT infrastructures and tools, and for general solutions to guaranty security and trust in E-Business. This handbook aims to show the state of the art in research and practice in
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THE HETEROGENEITY AND MULTIFACE OF E-BUSINESS ENVIRONMENT

E-Business is embedded in an open environment with many business entities (people, enterprises, government institution, etc.) participating. Each of them should have a chance for free and open E-business, regardless of the volume and the type of business they are running, where they are sited, and independent of local time, etc. In front of such fair goals there were, are and will be many obstacles for E-Business varying from country to country, from enterprise to enterprise and from person to person. These obstacles may be simple described by the two words “total heterogeneity”. In order to explain this we will use illustration given in Figure 1.

The areas of heterogeneity in E-Business may be classified by five categories, communication infrastructure, computing resources, business entities (enterprises), society, and standards, and all are mutually dependent. This Handbook mainly focuses on E-Business standards. They are important and helpful but unfortunately, the real situation in E-Business is far too complex, that it can be solved by standards alone. Due to the heterogeneity in E-Business arena may arise many and unexpected events and problems which afford additional and even new concepts, models and solutions. This will be discussed in this introduction, as well in many other chapters inside the book.

Thus let us address firstly communication and the heterogeneity of infrastructure. Much of Internet users may ask why is that? Internet protocols are well defined by its interfaces, including all rules known in advance, and they work, and may be confirmed by billions of Internet users. Therefore, where is heterogeneity in communication?

Figure 1. The total heterogeneity of E-Business arena