Modeling Internet-based Goal-oriented Enterprise Interoperability

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Abstract: The ability of an enterprise to collaborate with other enterprises is increasingly important to stay competitive and be successful in business. Enterprises must be able to effectively and sufficiently interact with suppliers and customers, and possibly combine and coordinate efforts to satisfy the needs of a single customer. This requires that different enterprises have to devise their processes and agree on a shared universe of discourse, such that their respective collaboration goals can be fulfilled. Furthermore, it requires interoperability between enterprises, i.e. the ability of enterprises to exchange information and to use the information that has been exchanged in accordance to the collaboration goals. The enterprises' processes drive the information exchange and use the information through interpretation under the shared universe of discourse. If the collaboration is to be supported by Information and Internet Technology, underlying automated systems send and receive messages containing user data to represent the information. Much work has been done to ensure interoperability of technical systems. Communication protocols and data formats have been standardized to achieve syntactic interoperability (exchange of data), and ontology definitions and ontology languages have been developed to facilitate semantic interoperability (interpretation of data). In order to achieve enterprise interoperability, business requirements and technology solutions have to be aligned. In this talk we will explore the modeling of business requirements with respect to enterprise interoperability in relation to Internet-based technology solutions. We will briefly discuss the challenges emerging from evolving enterprises as a result of, for example, changing goals, partners or technology.

BRIEF BIOGRAPHY

Marten van Sinderen holds a MSc in Electrical Engineering and a PhD in Computer Science, both from the University of Twente (UT). He is currently Associate Professor at the Faculty of Electrical Engineering, Mathematics and Computer Science of the UT, and coordinator of the research area on Service Architectures and Health Applications at UT's Centre for Telematics and Information Technology (CTIT). His research focuses on design methods and technologies for distributed information systems. His research interests include service-oriented architectures, model-driven design, enterprise interoperability, and business-IT alignment. Marten van Sinderen is active in both national and international communities on his field of interest. He was project manager of the Dutch Freeband/A-MUSE project (BSIK 03025) on model-driven design of context-aware services. He currently leads the Dutch GenCom/U-Care project (IGC0816) on tailorable and adaptive homecare services. He is chairman of the steering committee of the International IEEE Enterprise Computing Conference (EDOC), and program co-chair of the International Conference on e-Business (ICE-B). He is also a member of the managerial board of IFIP WG5.8 on Enterprise Interoperability, and a member of the editorial boards of the Enterprise Information Systems journal published by Taylor & Francis and the Service oriented Computing and Applications journal published by Springer.