Databases, Web Services, and Grid Computing – Standards and Directions

Stefan Dessloch

University of Kaiserslautern
Department of Computer Science
Heterogenous Information Systems Group
D-67653 Kaiserslautern, Germany
dessloch@informatik.uni-kl.de

Abstract. Over the last two years, web services have emerged as a key technology for distributed object computing, promising significant advantages for overcoming interoperability and heterogeneity problems in large scale, distributed environments. Major vendors have started to incorporate web service technology in their database and middleware products, and companies are starting to exploit the technology in information integration, EAI, and B2B-integration architectures. In the area of Grid computing, which aims at providing a distributed computing architecture and infrastructure for science and engineering, web services have become an important piece of the puzzle by providing so-called Grid Services that help realizing the goal of virtual organizations to coordinate resource sharing and problem solving tasks. The adequate support of data management functionality, or data-oriented services in general within this architectural setting is undoubtedly a key requirement and a number of approaches have been proposed both by research and industry to address the related problems. This talk will give an overview of recent developments in the areas outlined above and discuss important standardization activities as well as trends and directions in industry and research.