Collaborative Business Transactions Management: Issues and Challenges

Yanchun Zhang
School of Computer Science and Mathematics, Victoria University of Technology

Jian Yang
Infolab, Tilburg University, Netherlands
Macquaire University, Sydney

Chengfei Liu
School of Information Technology, Swinburne University of Technology

Abstract:

This tutorial seeks to discuss the key concepts in collaborative business transaction management. Its intent is to explain the concept in business transaction and how it is different from traditional database transaction and workflow transaction management, to evaluate existing approaches, and to present existing techniques from other areas that can be adopted for business transactions and their limitations, and lastly to discuss a framework that addresses the challenges that are unique to business transaction management in the service oriented environment.

About the presenters

Dr. Yanchun Zhang is a full Professor in the School of Computer Science and Mathematics and Director of Internet Technologies and Applications Research Lab (ITArI) at Victoria University of Technology. He is a founding editor and Editor-In-Chief of World Wide Web: Internet and Web Information Systems (WWW Journal) and founding Book Series Editor on Web Information Systems Engineering and Internet Technologies from Kluwer Academic Publishers, and Chairman of Web Information Systems Engineering (WISE) Society and Steering Committee Chair of WISE Conference Series. Dr Zhang obtained a PhD degree in Computer Science from The University of Queensland in 1991. His research areas cover database and information systems, distributed databases and multidatabase systems, CSCW, database support for cooperative work, electronic commerce, internet/web information systems, web data management, Web mining, web search and Web services.

Dr. Jian Yang is an associate professor at Infolab, Tilburg University, Netherlands and associate professor at Macquaire University, Sydney. Before she joined Infolab, she worked as a senior research scientist at the Division of Mathematical and Information Science, CSIRO, Australia (1998-2000), and as a lecturer (assistant professor) at Dept of Computer Science, The Australian Defence Force Academy, University of New South Wales (1993-1998). In addition to web services, her area of interests covers interoperability issues in digital libraries and e-commerce; business process modelling, query languages and query optimization; distributed query processing; internet computing; materialized view design and data warehousing.

Dr. Chengfei Liu is currently an associate professor with the School of Information Technology, Swinburne University of Technology. He was a senior lecturer with the University of South Australia, a lecturer with the University of Technology Sydney, and a senior research scientist with the Cooperative Research Centre for Distributed Systems Technology in University of Queensland. He has also held visiting positions at the IBM Silicon Valley Laboratory, University of Aizu, and Kyoto University. Dr. Liu obtained his PhD in Computer Science from the Nanjing University in 1988. His current research interests include workflows and transactional workflows, advanced transaction models, Web services, XML and Web information systems, object-oriented databases, distributed databases and data integration.