

Enterprise Service Computing: From Concept to Deployment

Robin G. Qiu, The Pennsylvania State University, USA

^HOCHSCHULE
• LIECHTENSTEIN
Bibliothek -



IDEA GROUP PUBLISHING

Hershey • London • Melbourne • Singapore

Enterprise Service Computing: From Concept to Deployment

Table of Contents

Preface.....vii

Section I: Business Aspects of Enterprise Service Computing

Chapter I

Information Technology as a Service.....
Robin G. Qiu, The Pennsylvania State University,

Chapter II

Integrating Business Processes with Enterprise Service Computing
Infrastructure.....*..... **25**

Wei Zhao, University of Alabama at Birmingham, USA

Jun-Jang Jeng, IBM T.J. Watson Research, USA

Lianjun An, IBM T.J. Watson Research, USA

FeiCao, University of Alabama at Birmingham, USA

Barret R. Bryant, University of Alabama at Birmingham, USA

Rainer Hauser, IBM Zurich Research, Switzerland

Tao Too, IBM T.J. Watson Research, USA

Chapter ID

Portfolio Measurement (SPM): Assessing Financial
Performance of Service-Oriented Information Systems.....58

*Jan vom Brocke, European Research Center for Information Systems
(ERCIS), University of Munster, Germany*

Section II:
Enterprise Service Computing:
Requirements

Chapter IV
Requirements Engineering for Integrating the Enterprise.....92
Raghvinder S. Sangwan, Penn State Great Valley, USA

Chapter V
Mobile Workforce Management in a Service-Oriented Enterprise:
Capturing Concepts and Requirements in a Multi-Agent
Infrastructure.....105
Dickson K. W. Chiu, Dickson Computer Systems, Hong Kong
*S. C. Cheung, Hong¹ Kong University of Science and Technology,
Hong Kong*
Ho-fung Leung, The Chinese University of Hong Kong, Hong Kong

Section III:
Enterprise Service Computing: Modeling

Chapter VI
Designing Enterprise Applications Using Model-Driven Service-Oriented
Architectures.....132 •
Marten van Sinderen, University of Twente, The Netherlands
Joao Paulo Andrade Almeida, Telematica Instituut, The Netherlands
Luis Ferreira Pires, University of Twente, The Netherlands
Dick Quartel, University of Twente, The Netherlands

Chapter VII
A Composite Application Model for Building Enterprise Information
Systems in a Connected World...../.....156
Jean-Jacques Dubray, SAP Labs, USA

Chapter VIII
Three-Point Service-Oriented Design and Modeling Methodology
for Web Services Composition.....176
Xiang Gao, Supercom Canada, Canada
Jen-Yao Chung, IBM T.J. Watson Research, USA

j
i
\
/

Section IV:
Enterprise Service Computing:
Technologies

Chapter IX
Data Replication Strategies in Wide-Area Distributed Systems. .211
Sushant Goel, University of Melbourne, Australia
Rajkumar Buyya, University of Melbourne, Australia '

Chapter X
Web Services vs. ebXML: An Evaluation of Web Services and ebXML
for E-Business Applications.....242
Yuhong Yan, Canada National Research Council, Canada
Matthias Klein, University of New Brunswick, Canada

Chapter XI
Leveraging Pervasive and Ubiquitous Service Computing. ,261
Zhijun Zhang, University of Phoenix, USA

Section V: Enterprise Service Computing: Formal Modeling

Chapter XII
A Petri Net-Based Specification Model Towards Verifiable Service
Computing.....285
Jia Zhang, Northern Illinois University, USA
Carl K. Chang, Iowa State University,. USA
Seong W. Kim, Samsung Advanced Institute of Technology, Korea

Chapter XIII
Service Computing for Design and Reconfiguration of Integrated
E-Supply Chains..... .322
Mariagrazia Dotoli, Politecnico di Bari, Italy
Maria Pia Fanti, Politecnico di Bari, Italy
Carlo Meloni, Politecnico di Bari, Italy
Mengchu Zhou, New Jersey Institute of Technology, USA _

**Section VI:
Enterprise Service Computing:
Best Practices and Deployment**

Chapter XIV	
Best Practice in Leveraging E-Business Technologies to Achieve Business Agility.....	356
<i>Ehap H. Sabri, University of Texas at Dallas, USA</i>	
Chapter XV	
Concepts and Operations of Two Research Projects on Web Services and Context at Zayed University.....	388
<i>Zakaria Maamar, Zayed University, UAE</i>	
About the Authors.....	408
Index.....	418