2009 13th Enterprise Distributed Object Computing Conference Workshops

(EDOCW 2009)

Auckland, New Zealand
1-4 September 2009
# Table of Contents

Proceedings of the IEEE EDOC 2009 Workshops and Short Papers: Editor's Message  

*Vladimir Tosic*

---

**Dynamic and Declarative Business Processes (DDBP) 2009**  
organized by Dragan Gašević, Georg Grossmann, Sylvain Hallé

<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dynamic and Declarative Business Processes: Editorial</td>
<td>1</td>
</tr>
<tr>
<td>Dragan Gašević, Georg Grossmann, Sylvain Hallé</td>
<td></td>
</tr>
<tr>
<td>On the Dynamic Composition of Complex Systems - Lessons Learned from Component-Oriented Software Engineering</td>
<td>5</td>
</tr>
<tr>
<td>Jens Dietrich</td>
<td></td>
</tr>
<tr>
<td>Dealing with Imprecise Compliance Requirements</td>
<td>6</td>
</tr>
<tr>
<td>Evan Morrison, Aditya Ghose, George Koliadis</td>
<td></td>
</tr>
<tr>
<td>Token Analysis of Graph-Oriented Process Models</td>
<td>15</td>
</tr>
<tr>
<td>Mathias Götz, Stephan Roser, Florian Lautenbacher, Bernhard Bauer</td>
<td></td>
</tr>
<tr>
<td>Making Processes from Best Practice Frameworks Actionable</td>
<td>25</td>
</tr>
<tr>
<td>Sven Graupner, Hamid Motahari, Sharad Singhal, Sujoy Basu</td>
<td></td>
</tr>
<tr>
<td>GSO: Designing a Well-Founded Service Ontology to Support Dynamic Service Discovery and Composition</td>
<td>35</td>
</tr>
<tr>
<td>Luiz Olavo Bonino da Silva Santos, Giancarlo Guizzardi, Eduardo M. Gonçalves da Silva, Luis Ferreira Pires, Marten van Sinderen</td>
<td></td>
</tr>
<tr>
<td>Process Mining for Semantic Business Process Modeling</td>
<td>45</td>
</tr>
<tr>
<td>Florian Lautenbacher, Bernhard Bauer, Sebastian Förg</td>
<td></td>
</tr>
<tr>
<td>Shusaku Iida, Grit Denker, Carolyn Talcott</td>
<td></td>
</tr>
<tr>
<td>Modeling and Reconfiguration of Critical Business Processes for the Purpose of a Business Continuity Management Respecting Security, Risk and Compliance Requirements at Credit</td>
<td>64</td>
</tr>
<tr>
<td>Cristoph Brandt, Frank Hermann, Thomas Engel</td>
<td></td>
</tr>
</tbody>
</table>

---

**Middleware for Web Services (MWS) 2009**  
organized by Hye-young Paik, Karl Michael Göschka, Aad Van Moorsel, Raymond Wong, Ian Warren

<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction to the Proceedings of the EDOC 2009 Workshop Middleware for Web Services (MWS) 2009</td>
<td>72</td>
</tr>
<tr>
<td>Hye-young Paik, Karl Michael Göschka, Aad Van Moorsel, Raymond Wong, Ian Warren</td>
<td></td>
</tr>
<tr>
<td>Decentralized Data Dependency Analysis for Concurrent Process Execution</td>
<td>74</td>
</tr>
<tr>
<td>Susan D. Urban, Ziao Liu, Le Gao</td>
<td></td>
</tr>
<tr>
<td>Database Synchronization as a Service</td>
<td>84</td>
</tr>
<tr>
<td>Christof Lutteroth, Gerald Weber</td>
<td></td>
</tr>
<tr>
<td>Performance Modelling Power Consumption and Carbon Emissions for Server Virtualization of Service Oriented Architectures (SOAs)</td>
<td>92</td>
</tr>
<tr>
<td>Paul Brebner, Liam O’Brien, Jon Gray</td>
<td></td>
</tr>
</tbody>
</table>
Web Services-Based Architecture for RFID Applications
David Sundaram, Wei Zhou, Schalk Pienaar, Selwyn Piramuthu

Monitoring Safety Properties of Composite Web Services at Runtime Using CSP
Mohsen Khaziar, Saeed Jalili, Narges Khakpour, M. Shaban Jokhio

Advances in Quality of Service Management (AQuSerM) 2009
organized by Liam O’Brien, Iman Hafiz Poernomo, Guijun Wang

Workshop Summary: Advances in Quality of Service Management (AQuSerM) 2009
Liam O’Brien, Iman Hafiz Poernomo, Guijun Wang

Flexible and Reliable Messaging using Runtime Monitoring
Sylvain Hallé, Roger Villemaire

Toward Grid Workflow Scheduling Based on Resource Competition
Sucha Smunchat, Sea Ling, Maria Indrawan

Characterization of Enterprise Architecture Quality Attributes
Mahsa Razavi Davoudi, Fereidoon Shams Aliee

Mobile Technology in Enterprise Computing Systems (MTECS) 2009
organized by Tiong-Thye Goh, Siddhartha Bose, Wee Keong Ng, Longbing Cao, Vincent C S Lee

Editorial to the Proceedings of Mobile Technologies in Enterprise Computing Systems Workshop (MTECS 2009)
Tiong-Thye Goh, Siddhartha Bose, Wee Keong Ng, Longbing Cao, Vincent C S Lee

Towards Automatic Behavior Synthesis of a Coordinator Component for Context-Aware Mobile Applications
Laura M. Daniele, Luís Ferreira Pires, Marten van Sinderen

Approaches for Optimizing the Performance of a Mobile SAML-based Emergency Response System
Thang Tran, Christian Wietfeld

Mobile Marketing Evolution: Systematic Literature Review on Multi-Channel Communication and Multi-Characteristics Campaign
Raymond Yiwen Huang, Judith Symonds

International Workshop on Security and Privacy in Enterprise Computing (InSPEC) 2009
organized by Rafael Accorsi, Ernesto Damiani, Frank Innerhofer-Oberperfler, Florian Kerschbaum

Editorial to the Second Workshop on Security and Privacy in Enterprise Computing (InSPEC09)
Rafael Accorsi, Ernesto Damiani, Frank Innerhofer-Oberperfler, Florian Kerschbaum

Scalable, Accountable Privacy Management for Large Organizations
Siani Pearson, Prasad Rao, Tomas Sander, Alan Parry, Allan Paull, Satish Patruni, Venkata Dandamudi-Ratnakar, Pranav Sharma

Service-Oriented Business Networks and Ecosystems (SOBNE) 2009
organized by Axel Korthaus, Alistair Barros

Introduction to the Proceedings of the 1st EDOC 2009 Workshop on Service-Oriented Business Networks and Ecosystems (SOBNE '09)
Axel Korthaus, Alistair Barros

Towards an Operationalisation of Governance and Strategy for Service Identification and Design
René Börner, Stefanie Looso, Matthias Goeken
0E-Procurement Adoption in the Malaysian Public Sector: Organizational Perspectives  
Maniam Kaliannan, Murali Raman, Magiswary Dorasamy  
189

Service Aggregators in Business Networks  
Thomas Kohlborn, Axel Korthaus, Christoph Riedl, Helmut Krcmar  
195

Managing Interoperability Knowledge in Open Service Ecosystems  
Toni Ruokolainen, Lea Kutvonen  
203

STraS: A Framework for Semantic Traceability in Enterprise-wide SOA Life-cycle Management  
Stefan Seedorf, Khrysstyna Nordheimer, Simone Krug  
212

Implementing a Multi-Enterprise Collaborative DSS  
Farzad Shafiei, David Sundaram, Selwyn Piramuthu  
220

An Infrastructure for Supporting Rebinding in BPEL Processes  
Anja Strunk, Sandro Reichert, Alexander Schill  
230

Towards Formalizing Virtual Enterprise Architecture  
Amit Goel, Heinz Schmidt, David Gilbert  
238

Idea to Derive Security Policies from Collaborative Business Processes  
Ji Hu  
243

**Service-Oriented Business Networks and Ecosystems (SOBNE) 2009**  
organized by Selmin Nurcan, Rainer Schmidt  

Service Oriented Enterprise-Architecture for Enterprise Engineering: Introduction  
Selmin Nurcan, Rainer Schmidt  
247

Keynote Talk: Scope, Cost and Effort Estimation for SOA Projects  
Liam O’Brien  
254

Business Service Identification and Modelling with Context Support  
Espen Moeller, Arne J. Berre  
255

An Enterprise Architecture Framework for Application Consolidation in the Swedish Armed Forces  
Ulrik Franke, Pontus Johnson  
264

Gap Analysis of Application Landscapes  
Matthias Postina, Igor Sechyn, Ulrike Steffens  
274

Towards a Holistic Framework for Describing and Evaluating Business Benefits of a Service Oriented Architecture (SOA)  
Ulrike Abelein, François Habryn, Alexander Becker  
282

DYNSEA – A Dynamic Service-Oriented Enterprise Architecture Based on S-D-Logic  
Rainer Schmidt, Axel Kieninger  
290

**Vocabularies, Ontologies and Rules for the Enterprise (VORTE) 2009**  
organized by Jens Dietrich, Dragan Gašević  

Vocabularies, Ontologies and Rules for the Enterprise: Editorial  
Jens Dietrich, Dragan Gašević  
297

Supporting Model Driven Engineering Using the Marama Meta Toolset  
John Hosking  
300

Process Model Adaptation using Semantic Technologies  
Florian Lautenbacher, Thomas Eisenbarth, Bernhard Bauer  
301
A Social Network Approach in Semantic Web Services Selection using Follow the Leader Behavior

Jebrin Al-Sharawneh, Mary-Anne Williams

EDOC 2009 Short Papers
organized by João Paulo A. Almeida, Gillian Dobbie

Requirements Engineering Based on Business Process Models: A Case Study
Evellin Cristine Souza Cardoso, João Paulo A. Almeida, Giancarlo Guizzardi

Decision Support Oriented Enterprise Architecture Metamodel Management using Classification Trees
Ulrik Franke, Johan Ullberg, Teodor Sommestad, Robert Lagerström, Pontus Johnson

New Models of Agile Manufacturing Assisted by Semantic
Francisco Maciá-Pérez, Virgilio Gilart-Iglesias, Antonio Ferrándiz-Colmeiro, José Vicente Berná-Martínez, Jorge Gea-Martínez

Workgroup Structures in Offshore Software Development Projects: A Vendor Case Study
Anuradha Mathrani, David Parsons, Rosemary Stockdale

Benefits of SOA: Evaluation of an Implemented Scenario against Alternative Architectures
Philipp Offermann, Martin Hoffmann, Udo Bub