





Proceedings

Martin Hepp, Axel Polleres, Frank van Harmelen, Michael Genesereth (Editors)

Proceedings

First International Workshop on Mediation in Semantic Web Services (MEDIATE 2005)

in conjunction with the

3rd International Conference on Service-Oriented Computing (ICSOC 2005)

Amsterdam, The Netherlands, December 12, 2005

Organizing Committee:

Michael Genesereth (Stanford University)
Frank van Harmelen (Vrije Universiteit Amsterdam)
Martin Hepp (DERI, University of Innsbruck)
Axel Polleres (DERI, University of Innsbruck)

Workshop URI:

http://www.deri.at/events/workshops/mediate2005



Sponsored by the European Commission under the DIP project (FP6 - 507483).

Table of Contents

Preface

Organizing	Committee a	nd Program	Committee	Members

Liliana Cabral and John Domingue: Mediation of Semantic Web Services in IRS-III	1
Gösta Grahne and Victoria Kiricenko: Process Mediation in an Extended Roman Model	17
Emanuele Della Valle, Dario Cerizza, and Irene Celino: The mediator centric approach to Automatic Web Service Discovery of Glue	35
Michael Stollberg, Emilia Cimpian, and Dieter Fensel: Mediating Capabilities with Delta-Relations	51
Colombe Hérault, Gaël Thomas, and Philippe Lalanda: Mediation and Enterprise Service Bus: A position paper	67
Jérôme Euzenat: Alignment infrastructure for ontology mediation and other applications	81
Adrian Mocan and Emilia Cimpian: Mappings Creation Using a View Based Approach	97
Philipp Kunfermann and Christian Drumm: Lifting XML Schemas to Ontologies - The concept finder algorithm	113

Preface

The usage of computer systems is widely characterized by decentralized design and autonomous evolution. If we look at system components from a global perspective, they are frequently developed and modified without alignment in the design stage. Also, components follow individual paths of evolution during their lifecycles. It can be observed that this is a major cause for interoperability problems, contributing to the brittleness of systems integration efforts. If we want to increase the degree of automation in general, it seems important to provide software components that can help overcome occurring interoperability conflicts and this in an automated fashion. This functionality is known as mediation and the respective components are called mediators.

Mediation can take place on various levels, e.g. on the level of data, ontologies, processes, protocols, or goals. To a great extent, it will depend on the availability of sophisticated, industry-strength mediation support whether the promise of Semantic Web services and dynamic value chains can become a reality.

As a consequence, mediators are a fundamental component of a comprehensive Semantic Web services framework. However, they are not yet fully developed as a research topic in this community. Many theoretical and practical issues of yielding sophisticated, scalable, and reliable mediators are not solved. The workshop aims at bringing together experts from various areas of research in order to advance the theoretical and practical knowledge about the design and implementation of mediators in Semantic Web services.

We received a very broad spectrum of submissions and are confident that the nine papers that we finally selected for publication and presentation will contribute to a better understanding of mediation in the context of Semantic Web services. All papers were reviewed by at least two members of the Program Committee.

The organizers would like to thank all authors for their submissions and the members of the Program Committee for their time in reviewing the papers.

Program Committee

Organizing Committee

Michael Genesereth (Stanford University)
Frank van Harmelen (Vrije Universiteit Amsterdam)
Martin Hepp (DERI, University of Innsbruck)
Axel Polleres (DERI, University of Innsbruck)

Program Committee

Diego Calvanese (Free University of Bozen/Bolzano)

Emilia Cimpian (DERI)

Jos De Bruijn, (DERI)

John Domingue (Open University)

Jérôme Euzenat (INRIA)

Dieter Fensel (DERI)

Fausto Giunchiglia (University of Trento)

Rick Hull (Bell Labs)

Michael Kifer (University at Stony Brook)

Deborah McGuinness (Stanford University)

Enrico Motta (The Open University)

Marco Pistore (University of Trento)

Pavel Shvaiko (University of Trento)

Jianwen Su (UC Santa Barbara)

York Sure (AIFB)

Paolo Traverso (ITC/IRST)

Michael F. Uschold (Boeing)

Ludger van Elst (DFKI)

Holger Wache (Vrije Universiteit Amsterdam)

Gio Wiederhold (Stanford University)