

Semantic Web Service Composition: The Web Service Challenge Perspective

Chapter · January 2014

DOI: 10.1007/978-1-4614-7518-7_7

In book: Web Services Foundations, pp.161-187



1st [Thomas Weise](#)

ORCID iD 20.98 · University of Science and Technology of China



2nd [M. Brian Blake](#)



3rd [Steffen Bleul](#)

ORCID iD 5.71 · Steffen Bleul

Abstract

Service-oriented architecture (SOA) is a software design paradigm for creating highly modular, distributed applications. Web services can implement well-defined, atomic functions which can be composed into high-level business processes. The composition of clearly separable modules is one of the key advantages of SOAs. This article provides an overview of research, challenges, and competitions in this domain. We first define and...

Do you want to read this chapter?

Request the full-text to ask the authors to provide the full-text version.

[Request full-text](#)


Citations 7

References 183

Similar research

OWL 2 Web Ontology Language Primer (Second Edition)

Technical Report · Jan 2012

 Pascal Hitzler  Markus Krötzsch  Bijan Parsia +1 more author...  Sebastian Rudolph[Request full-text](#)

0 Comments 44 Citations

How to Solve It: Modern Heuristics

Article · Jan 2004

 Zbigniew Michalewicz  David B. Fogel[Request full-text](#)

0 Comments 93 Citations

Web Services Description Language (WSDL) 2.0 Primer




Article · Jan 2007

 D. Booth  C. Kevin Liu[Request full-text](#)

0 Comments 91 Citations

The Web Service Challenge – A review on Semantic Web Service Composition

Article · Jan 2009

 Steffen Bleul  Thomas Weise  Kurt Geihs[Request full-text](#)

0 Comments 6 Citations

Interoperability in semantic web services



Conference Paper · Jan 2005

 B Benatallah  HRM Nezhad[Request full-text](#)

0 Comments 1 Citation

Overview of the Web Services Challenge (WSC): Discovery and Composition of Semantic Web Services

Chapter · Jan 2012

 Ajay Bansal  Srividya Bansal  M. Brian Blake +1 more author...  Thomas Weise[Request full-text](#)

Semantic Web Service Discovery Based on Agents and Ontologies

Full-text available · Article · Jan 2012 · International Journal of Innovation and Technology Management

Rohallah Benaboud

[View full-text](#)

0 Comments 59 Citations

Synthesizing the mediator with jABC/ABC

Article · Jan 2008

T. Margaria M. Bakera H. Raffelt B. Steffen

[Request full-text](#)

0 Comments 5 Citations

Tabu search

Full-text available · Article · Jan 1993 · Annals of Operations Research

F. Glover E. Taillard D. De Werra

[View full-text](#)

0 Comments 116 Citations

Automated synthesis of composite BPEL4WS Web services

Conference Paper · Jan 2005

M. Pistore P. Traverso P. Bertoli A. Marconi

[Request full-text](#)

0 Comments 124 Citations

Dynamic RosettaNet Integration on the Semantic Web Services

Article ·

Emilia Cimpian Paavo Kotinurmi Adrian Mocan +2 more authors... Maciej Zaremba

[Request full-text](#)

0 Comments 1 Citation

Business Processes Interoperation using OWL-P

Full-text available · Article ·

Amit K Chopra Nirmitt Desai Munindar P Singh

[View full-text](#)

0 Comments 1 Citation

[Recommend](#)[Request full-text](#)

 Karthik Gomadam  Jon Lathem  John A Miller +4 more authors...  Zixin Wu

[View full-text](#)

0 Comments 1 Citation

Discovery and Mediation using DIANE Service Descriptions

Article ·

 Ulrich Küster  Birgitta König-Ries

[Request full-text](#)

0 Comments 20 Citations

The jABC Approach to Mediation and Choreography

Full-text available · Article ·

 Christian Kubczak  Tiziana Margaria  Bernhard Steffen

[View full-text](#)

0 Comments 15 Citations

Dynamic Programming: A Computational Tool

Book · Jan 2006

 Art Lew  Holger Mauch

[Request full-text](#)

0 Comments 60 Citations

Semantic Web Services Challenge 2007 An approach to mediation synthesis with (j)ABC

Article ·

 Christian Kubczak  Tiziana Margaria  Harald Raffelt +1 more author...  Bernhard Steffen

[Request full-text](#)

0 Comments 1 Citation

Semantic Web Services Challenge, Results from the First Year. Series: Semantic Web And Beyond, Volume 8

Article · Jan 2009

 C. Petrie  T. Margaria  H. Lausen  M. Zaremba

[Request full-text](#)

0 Comments 12 Citations

Dynamic B2B Integration on the Semantic Web Services: SWS Challenge Phase 2

Article · Jan 2006

[Recommend](#)[Request full-text](#)

0 Comments 5 Citations

Business Process Execution Language for Web Services Version 1

Article · Jan 2003

T. Andrews F. Curbera H. Dholakia +7 more authors... S. Weerawarana

[Request full-text](#)

0 Comments 1354 Citations

Towards Automatic Discovery of Web Portals Semantic Description of Web Portal Capabilities

Article · Jan 2005 · Lecture Notes in Computer Science

Haibo Yu Tsunenori Mine Makoto Amamiya

[Request full-text](#)

0 Comments 12 Citations

A genetic programming approach to support the design of service compositions

Full-text available · Article · Jul 2006 · Computer Systems Science and Engineering

Lerina Aversano Kunal Taneja

[View full-text](#)

0 Comments 38 Citations

SWORD: A developer toolkit for Web service composition

Article · Jan 2002

Shankar R. Ponnekanti Armando Fox

[Request full-text](#)

0 Comments 499 Citations

Proceedings of the 6th International Workshop on Evaluation of Ontology-based Tools and the Semantic Web Service Challenge (EON-SWSC-2008), Tenerife, Spain, June 1-2, 2008

Article · Jan 2008

Raul Garcia-Castro Asunción Gómez-Pérez Charles J. Petrie +3 more authors...
 M. Omair Shafiq

[Request full-text](#)

0 Comments 1 Citation

Service Discovery using DIANE Service Descriptions - A solution to the SWS-Challenge Discovery Scenarios

Article ·

Ulrich Kuster Birgitta Konig-Ries

Semantic Web Services Challenge 2007 An approach to Discovery with miAamics and jABC

Article ·

 Christian Kubczak  Tiziana Margaria  Christian Winkler  Bernhard Steffen

[Request full-text](#)

0 Comments 2 Citations

Web Services Choreography Description Language Version 1.0 (W3C Candidate Recommendation)

Article · Jan 2005

 N Kavantzias  D Burdett  G Ritzinger +1 more author...  Y Lafon

[Request full-text](#)

0 Comments 187 Citations

A Solution to the Logistics Management Scenario with the Glue2 Web Service Discovery Engine

Article · Jan 2012

 Alessio Carenini  Dario Cerizza  Marco Comerio +4 more authors...  Andrea Turati

[Request full-text](#)

0 Comments 1 Citation

SOAP version 1.2 part 0: primer (second edition)

Article · Jan 2007





 Y Lafon  N Mitra

[Request full-text](#)

0 Comments 161 Citations

Secure and Provable Service Support for Human-Intensive Real-Estate Processes

Full-text available · Article · Sep 2006

 Emerson Ribeiro de Mello  Savas Parastatidis  Philipp Reinecke +2 more authors...
 Jim Webber

[View full-text](#)

0 Comments 5 Citations

An Ontology for Quality-Aware Service Discovery

Full-text available · Article · May 2011 · Computer Systems Science and Engineering

 Steffen Bleul  Thomas Weise

[View full-text](#)

0 Comments 32 Citations

Full-text available · Article · Jan 2005

Evren Sirin Bijan Parsia James Hendler

[View full-text](#)

0 Comments 106 Citations

Web Modeling-based Approach to Automating Web Services Mediation, Choreography and Discovery

Full-text available · Article · Jan 2006

Marco Brambilla Stefano Ceri Dario Cerizza +3 more authors... Christina Tziviskou

[View full-text](#)

0 Comments 4 Citations

DIANE: A Matchmaking-Centered Framework for Automated Service Discovery, Composition, Binding, and Invocation on the Web

Article · Dec 2007 · International Journal of Electronic Commerce

Ulrich Küster Birgitta König-Ries Michael Klein Mirco Stern

[Request full-text](#)

0 Comments 42 Citations

Coping with Requirements Changes: SWS-challenge phase II

Full-text available · Article · Jan 2006

M Brambilla S Ceri D Cerizza +3 more authors... C Tziviskou

[View full-text](#)

0 Comments 4 Citations

Improvements and future perspectives on web engineering methods for automating web services mediation, choreography and discovery: SWS-Challenge phase III

Article · Nov 2006

M Brambilla I Celino S Ceri +3 more authors... C Tziviskou

[Request full-text](#)

0 Comments 4 Citations

Semantic Service Discovery with DIANE Service Descriptions

Chapter · Jan 2009

Ulrich Küster Birgitta König-Ries

[Request full-text](#)

0 Comments 9 Citations

[Recommend](#)[Request full-text](#)

Full-text available · Article · Mar 1993 · Annals of Operations Research

Fred Glover Eric Taillard

[View full-text](#)

0 Comments 729 Citations

METEOR-S Web Service Annotation Framework with machine learning classification

Full-text available · Chapter · Jan 2005

Nicole Oldham Christopher Thomas Amit Sheth Kunal Verma

[View full-text](#)

0 Comments 68 Citations

A SOA based self-adaptive personal mobility manager

Conference Paper · Oct 2006

D. Lorenzoli S. Mussino M. Pezze +1 more author... D. Tosi

[Request full-text](#)

0 Comments 10 Citations

A dynamic-SOA home control gateway

Full-text available · Conference Paper · Oct 2006

Johann Bourcier Antonin Chazalet Mikael Desertot +1 more author... Cristina Marin

[View full-text](#)

0 Comments 34 Citations

SAP Research RoofTop Marketplace: Putting a Face on Service-Oriented Architectures

Full-text available · Conference Paper · Aug 2009

Volker Hoyer Florian Gilles Till Janner Katarina Stanoevska-Slabeva

[View full-text](#)

0 Comments 13 Citations

2009 Congress on Services- I Genesis – Dynamic Collaborative Business Process Formulation Based on Business Goals and Criteria

Conference Paper · Aug 2009

Ryan K.L. Ko Andre Jusuf S.G. Lee

[Request full-text](#)

0 Comments 9 Citations

Artificial Intelligence: A Modern Approach

[Request full-text](#)

0 Comments 3979 Citations

Concept mapping for faster QoS-aware Web service composition



Full-text available · Conference Paper · Jan 2011

 Viktoriya Degeler  Ilce Georgievski  Alexander Lazovik  Marco Aiello[View full-text](#)

0 Comments 3 Citations

WSC-2010: Web services composition and evaluation



Full-text available · Conference Paper · Jan 2011

 M. Brian Blake  Thomas Weise  Steffen Bleul[View full-text](#)

0 Comments 4 Citations

Extensible markup language (XML) 1.0

Article · Jan 2004

 Tim Bray  Jean Paoli  C M Sperberg-McQueen[Request full-text](#)

0 Comments 1524 Citations

HTN planning for Web service composition using SHOP2

Full-text available · Article · Jul 2004 · Journal of Web Semantics

 Evren Sirin  Bijan Parsia  Dan Wu +1 more author...  Dana Nau[View full-text](#)

0 Comments 663 Citations

A Mixed Initiative Approach to Semantic Web Service Discovery and Composition: SAP's Guided Procedures Framework

Full-text available · Conference Paper · Jan 2006

 Jinghai Rao  Dimitar Dimitrov  Paul Hofmann  Norman M. Sadeh[View full-text](#)

0 Comments 53 Citations

Two-phase graph search algorithm for QoS-aware automatic service composition

Full-text available · Conference Paper · Dec 2010

 Huanyu Ma  Wei Jiang  Songlin Hu +1 more author...  Zhiyong Liu

An accumulated-QoS-first search approach for semantic web service composition

Full-text available · Conference Paper · Dec 2010

Sen Luo Bin Xu Yixin Yan

[View full-text](#)

0 Comments 2 Citations

A QoS-Driven Approach for Semantic Service Composition

Full-text available · Conference Paper · Jul 2009

Yixin Yan Bin Xu Zhifeng Gu Sen Luo

[View full-text](#)

0 Comments 29 Citations

A Web Service Composition Framework Using Integer Programming with Non-Functional Objectives and Constraints

Full-text available · Conference Paper · Jul 2008

John Jung-woon Yoo Soundar R. T. Kumara Dongwon Lee Seog-Chan Oh

[View full-text](#)

0 Comments 17 Citations

Inheritance-Aware Document-Driven Service Composition

Full-text available · Conference Paper · Jul 2007

Zhifeng Gu Bin Xu Juan-Zi Li

[View full-text](#)

0 Comments 11 Citations

Experiences Building a Standards-Based Service Description Repository

Conference Paper · Jul 2008

Paul A. Buhler Robert W. Thomas

[Request full-text](#)

0 Comments 2 Citations

Automatic service composition using AND/OR graph

Full-text available · Conference Paper · Jul 2008





Yixin Yan Bin Xu Zhifeng Gu

[View full-text](#)

0 Comments 29 Citations

WSC-07: Evolving the Web Services Challenge

Full-text available · Conference Paper · Jul 2007

 M. Brian Blake  William Kwok-Wai Cheung  Michael C. Jaeger  Andreas Wombacher

[View full-text](#)

0 Comments 7 Citations

Semantic Web Service Composition Framework Based on Parallel Processing

Full-text available · Conference Paper · Jul 2009

 Peter Bartalos  Mária Bieliková

[View full-text](#)

0 Comments 26 Citations

Web Service Discovery and Composition using USDL

Full-text available · Conference Paper · Jan 2006



 Srividya Kona  Ajay Bansal  Gopal Gupta  Thomas D. Hite

[View full-text](#)

0 Comments 12 Citations

QoS-Driven Web Service Composition Using Learning-Based Depth First Search

Conference Paper · Jul 2009



 Wonhong Nam  Hyunyoung Kil  Jungjae Lee

[Request full-text](#)

0 Comments 4 Citations

Customizable Business Process Composition with Query Optimization

Conference Paper · Jul 2008




 Krishna Raman  Yue Zhang  Mark Panahi  Kwei-Jay Lin

[Request full-text](#)

0 Comments 3 Citations

WSPR*: Web-Service Planner Augmented with A* Algorithm

Conference Paper · Jul 2009

 Seog-Chan Oh  Ju-Yeon Lee  Seon-Hwa Cheong +5 more authors...  Mye M. Sohn

[Request full-text](#)

0 Comments 15 Citations





Type-Aware Web Service Composition Using Boolean Satisfiability Solver

[Request full-text](#)

0 Comments 19 Citations

Semantic Matching to Achieve Web Service Discovery and Composition

Full-text available · Conference Paper · Jan 2006




 Rama Akkiraju  Anca Ivan  Richard Goodwin +1 more author...
 Tanveer Fathima Syeda-Mahmood

[View full-text](#)

0 Comments 15 Citations

WSC-06: The Web Service Challenge

Full-text available · Conference Paper · Jan 2006

 M. Brian Blake  William Kwok-Wai Cheung  Michael C. Jaeger  Andreas Wombacher

[View full-text](#)

0 Comments 20 Citations

Business Process Composition with QoS Optimization

Conference Paper · Jul 2009

 Jing Zhang  Weiran Nie  Mark Panahi +1 more author...  Kwei-Jay Lin

[Request full-text](#)

0 Comments 3 Citations

Semantic Web Service Composition for Service-Oriented Architectures

Full-text available · Conference Paper · Jul 2008

 Thomas Weise  Steffen Bleul  Marc Kirchhoff  Kurt Geihs

[View full-text](#)

0 Comments 9 Citations

Semantics-Based Web Service Composition Engine

Full-text available · Conference Paper · Jul 2007

 Srividya Kona  Ajay Bansal  Gopal Gupta  Thomas D. Hite

[View full-text](#)

0 Comments 8 Citations

Visualizing Compositions of Services from Large Repositories

Full-text available · Conference Paper · Jul 2008

[Recommend](#)[Request full-text](#)

0 Comments 10 Citations

A Planning Graph Based Algorithm for Semantic Web Service Composition

Conference Paper · Jul 2008

Yuhong Yan Xianrong Zheng

[Request full-text](#)

0 Comments 14 Citations

MOVE: A Generic Service Composition Framework for Service Oriented Architectures

Full-text available · Conference Paper · Jul 2009

Albert Rainer Jürgen Dorn

[View full-text](#)

0 Comments 4 Citations

Large-Scale Network Decomposition and Mathematical Programming Based Web Service Composition

Conference Paper · Jul 2009

Li Ying Cui Soundar Kumara John Jung-Woon Yoo Fatih Cavdur

[Request full-text](#)

0 Comments 10 Citations

Effective Pruning Algorithm for QoS-Aware Service Composition

Full-text available · Conference Paper · Jul 2009

Zhenqiu Huang Wei Jiang Songlin Hu Zhiyong Liu

[View full-text](#)

0 Comments 42 Citations

WSC-2009: A Quality of Service-Oriented Web Services Challenge

Full-text available · Conference Paper · Jul 2009

Srividya Kona Ajay Bansal M. Brian Blake +1 more author... Thomas Weise

[View full-text](#)

0 Comments 30 Citations

WSC-08: Continuing the Web Services Challenge

Conference Paper · Jul 2008

Ajay Bansal M. Brian Blake Srividya Kona +2 more authors... Michael C. Jaeger

[Request full-text](#)

A Survey of Automated Web Service Composition Methods

Full-text available · Conference Paper · Jan 2004

 Jinghai Rao  Xiaomeng Su

[View full-text](#)

0 Comments 874 Citations

Automated Composition of Semantic Web Services into Executable Processes

Full-text available · Conference Paper · Nov 2004

 Paolo Traverso  Marco Pistore

[View full-text](#)

0 Comments 348 Citations

Bringing Semantics to Web Services: the OWL-S approach

Full-text available · Conference Paper · Jul 2004



 David L. Martin  Massimo Paolucci  Sheila A. McIlraith +8 more authors...  Katia P. Sycara

[View full-text](#)

0 Comments 614 Citations

An efficient algorithm for OWL-S based semantic search in UDDI

Full-text available · Conference Paper · Jul 2004


 Naveen Srinivasan  Massimo Paolucci  Katia P. Sycara

[View full-text](#)

0 Comments 144 Citations

Introduction to Semantic Web Services and Web Process Composition

Full-text available · Conference Paper · Jul 2004

 Jorge Cardoso  Amit P. Sheth

[View full-text](#)

0 Comments 85 Citations

Academic and Industrial Research: Do Their Approaches Differ in Adding Semantics to Web Services?

Full-text available · Conference Paper · Jul 2004

 Jorge Cardoso  John A. Miller  Jianwen Su  Jeff Pollock

[View full-text](#)

0 Comments 17 Citations

Conference Paper · Jul 2004

 Daniel Olmedilla  Rubén Lara  Axel Polleres  Holger Lausen

[Request full-text](#)

0 Comments 55 Citations

Compensation in the World of Web Services Composition

Full-text available · Conference Paper · Jan 2004

 Debmalya Biswas

[View full-text](#)

0 Comments 38 Citations

Enhancing Web Services Description and Discovery to Facilitate Composition

Full-text available · Conference Paper · Jul 2004

 Preeda Rajasekaran  John A. Miller  Kunal Verma  Amit P. Sheth

[View full-text](#)

0 Comments 122 Citations

Applying distributed business rules – The VIDRE approach

Full-text available · Conference Paper · Sep 2006

 Florian Rosenberg  Christoph Nagl  Schahram Dustdar

[View full-text](#)

0 Comments 9 Citations

Effective Acquisition of Geospatial Data Products in a Collaborative Grid Environment

Conference Paper · Sep 2006





 Yaxing Wei  Peng Yue  Upendra Dadi +2 more authors...  Liping Di

[Request full-text](#)

0 Comments 6 Citations

Model-driven, Semantic Service Integration using COSMO Framework.

Full-text available · Conference Paper · Jan 2008

 Dick A. C. Quartel  Stanislav Pokraev  Teduh Dirgahayu +1 more author...
 Marten van Sinderen

[View full-text](#)

0 Comments 4 Citations




Semantic System Integration – Incorporating Rulebased Semantic Bridges into BPEL Processes

[Request full-text](#)

0 Comments 8 Citations

Abductive Synthesis of the Mediator Scenario with jABC and GEM.





Full-text available · Conference Paper · Jan 2008

 Christian Kubczak  Tiziana Margaria  Matthias Kaiser +1 more author...  Bjoern Knuth[View full-text](#)

0 Comments 6 Citations

Data and Process Mediation Support for B2B Integration.


Conference Paper · Jan 2008

 Maciej Zaremba  Maximilian Herold  Raluca Zaharia  Tomas Vitvar[Request full-text](#)

0 Comments 2 Citations

Debugging OWL Ontologies- A Reality Check





Full-text available · Conference Paper · Jan 2008

 Heiner Stuckenschmidt[View full-text](#)

0 Comments 16 Citations

Semantic Web Service Discovery and Selection: a Test Bed Scenario

Full-text available · Conference Paper · Jan 2008

 Alessio Carenini  Dario Cerizza  Marco Comerio +5 more authors...  Andrea Turati[View full-text](#)

0 Comments 10 Citations

The Service Security Lab: A Model-Driven Platform to Compose and Explore Service Security in the Cloud

Full-text available · Conference Paper · Jul 2010

 Michael Menzel  Robert Warschofsky  Ivonne Thomas +1 more author...  Christoph Meinel[View full-text](#)

0 Comments 21 Citations

Accountability as a Service for the Cloud: From Concept to Implementation with BPEL

Full-text available · Conference Paper · Jul 2010

 Jinhui Yao  Shiping Chen  Chen Wang +1 more author...  John Zic

SOA-based Integration of Text Mining Services

Full-text available · Conference Paper · Jul 2009





 Johannes Starlinger  Florian Leitner  Alfonso Valencia  Ulf Leser

[View full-text](#)

0 Comments 7 Citations

Posr: A Comprehensive System for Aggregating and Using Web Services

Conference Paper · Jul 2009

 Mohammed AbuJarour  Mircea Craculeac  Falko Menge +1 more author...
 Jan-Felix Schwarz

[Request full-text](#)

0 Comments 6 Citations

REST-Based SOA Application in the Cloud: A Text Correction Service Case Study

Conference Paper · Jul 2010

 Wubin Li  Petter Svärd

[Request full-text](#)

0 Comments 9 Citations

Moving Text Analysis Tools to the Cloud

Full-text available · Conference Paper · Jul 2010

 Himanshu Vashishtha  Michael Smit  Eleni Stroulia

[View full-text](#)

0 Comments 10 Citations

Standing Processes in Service-Oriented Environments

Conference Paper · Jul 2009




 Steffen Preissler  Dirk Habich  Wolfgang Lehner

[Request full-text](#)

0 Comments 1 Citation

Web-FIM: Automated Framework for the Inference of Business Software Models




Conference Paper · Jul 2009

 Hesham H. Hallal  Arnaud Dury  Alexandre Petrenko

[Request full-text](#)

0 Comments 1 Citation

Conference Paper · Jan 2007

 Ulrich Küster  Holger Lausen  Birgitta König-Ries

[Request full-text](#)

0 Comments 33 Citations

Towards Semantic Interoperability - In-depth Comparison of Two Approaches to Solving Semantic Web Service Challenge Mediation Tasks.

Full-text available · Conference Paper · Jan 2007

 Maciej Zaremba  Tomas Vitvar  Matthew Moran +5 more authors...  Christina Tziviskou

[View full-text](#)

0 Comments 9 Citations

A Partial Solution to the Semantic Web Services Challenge Problem Using Swashup - The Ruby on Rails Services Mashup Approach.

Conference Paper · Jan 2007

 E. Michael Maximilien

[Request full-text](#)

0 Comments 2 Citations

SWS Challenge - First Year Overview.

Full-text available · Conference Paper · Jan 2007

 Charles J. Petrie  Holger Lausen  Michal Zaremba

[View full-text](#)

0 Comments 10 Citations

Service Discovery with SWE-ET and DIANE - A Comparative Evaluation by Means of Solutions to a Common Scenario.

Full-text available · Conference Paper · Jan 2007

 Ulrich Küster  Andrea Turati  Maciej Zaremba +6 more authors...  Christina Tziviskou

[View full-text](#)

0 Comments 7 Citations

Automatic Composition of Semantic Web Services Using Process Mediation.

Full-text available · Conference Paper · Jan 2007

 Zixin Wu  Karthik Gomadam  Ajith Ranabahu +1 more author...  John A. Miller

[View full-text](#)

0 Comments 44 Citations

Full-text available · Conference Paper · Jan 2007

Charles J. Petrie Tiziana Margaria Ulrich Küster +1 more author... Michal Zaremba

[View full-text](#)

0 Comments 12 Citations

Web Service Discovery and Composition for Virtual Enterprises

Full-text available · Article · Jan 2007 · International Journal of Web Services Research

Jürgen Dorn Peter Hrastnik Albert Rainer

[View full-text](#)

0 Comments 15 Citations

Effective Web Service Composition in Diverse and Large-Scale Service Networks

Full-text available · Article · Jan 2008 · IEEE Transactions on Services Computing

Seog-Chan Oh Dongwon Lee Soundar R. T. Kumara

[View full-text](#)

0 Comments 117 Citations

The WSLA Framework: Specifying and Monitoring Service Level Agreements for Web Services

Full-text available · Article · Mar 2003 · Journal of Network and Systems Management

Alexander Keller Heiko Ludwig

[View full-text](#)

0 Comments 814 Citations

Composing Web services on the Semantic Web

Full-text available · Article · Nov 2003 · The VLDB Journal

Brahim Medjahed Athman Bouguettaya Ahmed K. Elmagarmid

[View full-text](#)

0 Comments 506 Citations

A Note on the Finite Time Behavior of Simulated Annealing

Article · Aug 2000 · Mathematics of Operations Research

Andreas Nolte Rainer Schrader

[Request full-text](#)

0 Comments 28 Citations

Evolutionary Algorithms for Solving Multi-Objective Problems SE – Genetic and Evolutionary Computation

[Request full-text](#)0 Comments 868 Citations

Handbook of Evolutionary Computation

Book · Jan 1997

T.~Bäck D. ~B. Fogel Z.~M.~Michalewicz

[Request full-text](#)0 Comments 1718 Citations

MapReduce for Scalable Neural Nets Training

Conference Paper · Jul 2010

Sebastian Richly Georg Püschel Dirk Habich Sebastian Götz

[Request full-text](#)0 Comments 2 Citations

Open Service Process Platform 2.0

Conference Paper · Jul 2008

Dirk Habich Sebastian Richly Andreas Ruempel +1 more author... Steffen Preissler

[Request full-text](#)0 Comments 13 Citations

Web Service Level Agreement (WSLA) Language Specification

Full-text available · Book · Jan 2003

Heiko Ludwig Alexander Keller Asit Dan +1 more author... Richard Franck

[View full-text](#)0 Comments 385 Citations

Service-Oriented Architecture: Concepts, Technology, and Design

Book · Jan 2005

Thomas Erl

[Request full-text](#)0 Comments 2005 Citations

Global Optimization Algorithm: Theory and Application

Book · Jan 2009

T. Weise

[Request full-text](#)

Advances in Linear and Integer Programming

Book · Jan 1996



 J. E. Beasley

[Request full-text](#)

0 Comments 48 Citations

The MIDAS System: A Service Oriented Architecture for Automated Supply Chain Management

Book · Sep 2006

 Firat Kart  Zhongnan Shen  Cagdas Evren Gerede

[Request full-text](#)

0 Comments 9 Citations

OWL Web Ontology Language Reference

Full-text available · Article · Feb 2004

 Sean Bechhofer  Frank van Harmelen  Jim Hendler +3 more authors...  Lynn Andrea Stein

[View full-text](#)

0 Comments 1543 Citations

XML schema part 0: Primer second edition

Article · Jan 2004

 Fallside  David C.  Walmsley  Priscilla

[Request full-text](#)

0 Comments 354 Citations

Service-Oriented Architecture (SOA): Strategy, Methodology, and Technology

Article ·





 James P. Lawler  H. Howell-Barber

[Request full-text](#)

0 Comments 33 Citations

Combining goal-oriented and model-driven approaches to solve the Payment Problem Scenario

Article ·

 C.H. Asuncion  D.A.C. Quartel  S.V. Pokraev +1 more author...  M.J. van Sinderen

[Request full-text](#)

0 Comments 4 Citations

[Recommend](#)[Request full-text](#)

Patrick Ratelband Alexander Lazovik Elie el Khoury Marco Aiello

[View full-text](#)

0 Comments 29 Citations

Evolutionary Algorithms in Theory and Practice : Evolution Strategies, Evolutionary Programming, Genetic Algorithms / T. Bäck.

Article · Jan 1996

Thomas Bäck

[Request full-text](#)

0 Comments 1064 Citations

Optimization by Simulated Annealing

Full-text available · Article · Jun 1983 · Science

Kirkpatrick SC C. D. Jr. Gelatt M. P. Jr. Vecchi

[View full-text](#)

0 Comments 23601 Citations

A Rental Advising System Based on Service Oriented Architecture

Conference Paper · Aug 2008

Jie Liang Yanyin Zhang Jianguo Lu +2 more authors... Shaohua Wang

[Request full-text](#)

0 Comments 1 Citation

An Intelligent Traveling Service Based on SOA

Conference Paper · Aug 2008

Samaneh Navabpour Laleh Soltan Ghorai Ali Akhavan Malayeri +1 more author...

Jianguo Lu

[Request full-text](#)

0 Comments 8 Citations

Distributed Simulation and Web Map Mash-Up for Forest Fire Spread

Full-text available · Conference Paper · Aug 2008

Yosri Harzallah Vincent Michel Qi Liu Gabriel Wainer

[View full-text](#)

0 Comments 10 Citations

Service Composition for GIS

[Request full-text](#)

0 Comments 6 Citations

Second Life Gift Registry: Bringing Retail Web Applications into the Metaverse





Conference Paper · Aug 2008

 David Chodos  Eleni Stroulia[Request full-text](#)

0 Comments 1 Citation

An Intelligent Ontology and Bayesian Network Based Semantic Mashup for Tourism

Conference Paper · Aug 2008

 Wei Wang  Guosun Zeng  Dongqi Zhang +2 more authors...  Xiaojun Wang[Request full-text](#)

0 Comments 16 Citations

A Rich Internet Application Based on BPEL Services Composition for Port Logistics



Conference Paper · Aug 2008

 Peng Zhu  Dongyuan Zhan  Chuanhong Zhu +2 more authors...  Biqing Huang[Request full-text](#)

0 Comments 3 Citations

A Domain-Specific Query Language for Information Services Mash-up





Conference Paper · Aug 2008

 Weilong Ding  Jing Cheng  Kaiyuan Qi +2 more authors...  Jun Fang[Request full-text](#)

0 Comments 3 Citations

iNIU A Services Portal for NIU Students

Conference Paper · Aug 2008

 Raghu Kumar Reddy Ariga  Karthik Akula  Shreya Reddy Gujjala +2 more authors...
 Jia Zhang[Request full-text](#)

0 Comments 3 Citations



Automated Data Augmentation Services Using Text Mining, Data Cleansing and Web Crawling Techniques

Conference Paper · Aug 2008

 Matthias Jacob  Alexander Kuscher  Max Plauth  Christoph Thiele

A Mash Up Home Library Management System

Conference Paper · Aug 2008

 Suresh Jeyaverasingam  Yuhong Yan

[Request full-text](#)

0 Comments 1 Citation

Different Approaches to Semantic Web Service Composition

Full-text available · Conference Paper · Jul 2008

 Thomas Weise  Steffen Bleul  Diana Comes  Kurt Geihs

[View full-text](#)

0 Comments 59 Citations

Semantic Mediation between Business Partners - A SWS-Challenge Solution Using DIANE Service Descriptions

Conference Paper · Dec 2007

 Ulrich Kuster  Birgitta Konig-Ries

[Request full-text](#)

0 Comments 4 Citations

Service-Oriented Mediation with jETI/jABC: Verification and Export

Conference Paper · Dec 2007





 Christian Kubczak  Tiziana Margaria  Bernhard Steffen  Stefan Naujokat

[Request full-text](#)

0 Comments 13 Citations

WebML and Glue: An Integrated Discovery Approach for the SWS Challenge

Conference Paper · Dec 2007

 Marco Brambilla  Stefano Ceri  Federico Facca +4 more authors...  Andrea Turati

[Request full-text](#)

0 Comments 2 Citations

An Approach to Discovery with miAamics and jABC

Conference Paper · Dec 2007

 Christian Kubczak  Christian Winkler  Tiziana Margaria  Bernhard Steffen

[Request full-text](#)

0 Comments 7 Citations



Conference Paper · Dec 2007

Matthew Moran Tomas Vitvar Maciej Zaremba

[Request full-text](#)

0 Comments 3 Citations

Semantic Web-Service Discovery and Composition Using Flexible Parameter Matching

Full-text available · Conference Paper · Aug 2007

Seog-Chan Oh Jung-Woon Yoo Hyunyoung Kil +1 more author... Soundar R. T. Kumara

[View full-text](#)

0 Comments 19 Citations

A Multiagent Web Service Composition Engine, Revisited

Conference Paper · Aug 2007

Paul A. Buhler Dominic Greenwood George Weichhart

[Request full-text](#)

0 Comments 13 Citations

Heuristic-based Service Composition for Business Processes with Branching and Merging

Conference Paper · Aug 2007

Yue Zhang Krishna Raman Mark Panahi Kwei-Jay Lin

[Request full-text](#)

0 Comments 7 Citations

Making a Fast Semantic Service Composition System Faster

Full-text available · Conference Paper · Aug 2007

Steffen Bleul Thomas Weise Kurt Geihs

[View full-text](#)

0 Comments 17 Citations

Services Oriented Knowledge-based Supply Chain Application

Conference Paper · Aug 2007

Wei Dai Paul Moynihan Juanqiong Gou +3 more authors... Xin Wan

[Request full-text](#)

0 Comments 12 Citations

A Distributed e-Healthcare System Based on the Service Oriented Architecture

Conference Paper · Aug 2007



0 Comments 42 Citations

Large-Scale Service Composition in Semantic Service Discovery

Full-text available · Conference Paper · Feb 2006

Steffen Bleul Thomas Weise Kurt Geihs

[View full-text](#)

0 Comments 13 Citations

Web Service Indexing for Efficient Retrieval and Composition

Full-text available · Conference Paper · Feb 0001

M. Aiello C. Platzer F. Rosenberg +2 more authors... S. Dustdar

[View full-text](#)

0 Comments 25 Citations

Algorithms for Web Services Discovery and Composition Based on Syntactic and Semantic Service Descriptions

Full-text available · Conference Paper · Feb 2006

Seog-Chan Oh H. Kil Dongwon Lee S.R.T. Kumara

[View full-text](#)

0 Comments 8 Citations

Syntactical & Semantical Web Services Discovery And Composition

Conference Paper · Feb 2006

V. Ramasamy

[Request full-text](#)

0 Comments 6 Citations

Strategies for Efficient Syntactical and Semantic Web Services

Conference Paper · Feb 2006

Yue Zhang Tao Yu K. Raman Kwei-Jay Lin

[Request full-text](#)

0 Comments 3 Citations

jUDDI+: A SemanticWeb Services Registry enabling Semantic Discovery and Composition

Full-text available · Conference Paper · Feb 2006

F. Colasuonno S. Coppi A. Ragone L.L. Scordia