

1. Record Nr.	UNISA996465920503316
Titolo	Service Oriented Computing [[electronic resource]] : 9th International Conference, ICSOC 2011, Paphos, Cyprus, December 5-8, 2011, Proceedings / / edited by Gerti Kappel, Zakaria Maamar, Hamid R. Motahari-Nezhad
Pubbl/distr/stampa	Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 2011
ISBN	3-642-25535-3
Edizione	[1st ed. 2011.]
Descrizione fisica	1 online resource (XVIII, 680 p.)
Collana	Programming and Software Engineering ; ; 7084
Disciplina	004.36
Soggetti	Software engineering Computer communication systems Application software Information storage and retrieval Management information systems Computer science Information technology Business—Data processing Software Engineering Computer Communication Networks Information Systems Applications (incl. Internet) Information Storage and Retrieval Management of Computing and Information Systems IT in Business
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di contenuto	Title Page -- Preface -- Organization -- Table of Contents -- Research Papers - Long -- Business Process Modeling -- Computing Degree of Parallelism for BPMN Processes -- Introduction -- A Formal Model for Processes -- Homogeneous Processes -- Acyclic Choice-Less Processes -- Asynchronous Processes -- Related Work -- Conclusions -- References -- State Propagation in Abstracted Business Processes

-- Introduction -- Motivating Example and Research Challenges --
Activity Instance State Propagation -- Preliminaries -- State
Propagation -- Activity Instance State Uniqueness -- Activity Instance
State Transition Correctness -- Behavioral Inconsistencies -- Example
-- Formalization of Behavioral Inconsistencies -- Classification of
Behavioral Inconsistencies -- Related Work -- Conclusion and Future
Work -- References -- Push-Enabling RESTful Business Processes --
Introduction -- RESTful Business Processes -- Publishing Processes as
Resources -- Process Representations -- Uniform Interface -- Example
-- RESTful Push Interactions -- Using HTTP -- Dedicated Push
Frameworks -- Architecture -- Representing Process Resources as
Feeds -- Push-Enabled RESTful Process Execution Engine -- Related
Work -- Conclusions -- References -- Quality of Service 1 -- QoS
Analysis for Web Service Compositions Based on Probabilistic QoS --
Introduction -- Related Work -- Preliminaries -- Modeling Composite
Services and Composition Patterns -- Model Processing Algorithm for
Composite QoS Computation -- Probabilistic QoS Aggregation --
Approach Overview and Underlying Assumptions -- QoS Probability
Distribution Calculation for Composition Patterns -- Experiment --
Validation -- Efficiency -- Conclusion -- References -- Constraint-
Based Runtime Prediction of SLA Violations in Service Orchestrations --
Introduction -- Motivation -- Constraint-Based QoS Prediction.
The General Prediction Framework -- QoS Prediction Architecture --
Representing Orchestrations and Their Continuations -- Deriving QoS
Constraints from Continuations -- Using Computational Cost Functions
-- Solving the Constraints -- Experimental Evaluations --
Implementation Notes -- Conclusions -- References -- Optimizing
Decisions in Web Services Orchestrations -- Introduction --
Fundamentals -- Optimization Models -- QoS in Web Services --
Analytic Hierarchy Process -- Methodology -- Formulating
Optimization Problems -- Optimization Routines in Orc -- QOrc:
Upgrading Orc for QoS Management -- Interfacing QOrc to
Optimization Services -- Optimal Decision Results -- Related Work --
Conclusion -- References -- Formal Methods -- Decidability Results
for Choreography Realization -- Introduction -- Basic Definitions --
Interconnected Models and Interaction Models -- Languages and
Traces -- Partial Realizability -- The Synchronous Case -- The
Asynchronous Case -- Distributed Realizability -- The Synchronous
Case -- The Asynchronous Case -- Complexity -- Complete
Realizability -- The Synchronous Case -- The Asynchronous Case --
Complexity -- Related Work -- Conclusion and Open Problems --
References -- Conformance Testing for Asynchronously
Communicating Services -- Introduction -- Correct Behavior --
Conformance Partner -- Test Case Generation -- Related Work --
Conclusion -- References -- Programming Services with Correlation
Sets -- Introduction -- Key Concepts in Service-Oriented Computing --
Language Overview -- Data Structures, Syntax and Semantics --
Properties and Types -- Language Implementation in JOLIE -- Example:
A Decentralised Authentication Protocol -- Related Work and
Conclusions -- References -- Verification of Deployed Artifact Systems
via Data Abstraction -- Introduction -- Artifacts and Artifact Systems.
The Order-to-Cash Business Process -- Verification of Artifact Systems
-- The General Problem -- Verification of Deployed Artifact Systems --
Conclusions and Future Work -- References -- XaaS Computing --
Profiling-as-a-Service: Adaptive Scalable Resource Profiling for the
Cloud in the Cloud -- Introduction -- Profiling as a Service (PaaS) --
Adaptive Resource Profiling in the Cloud -- Constraint-Guided Profiling
Adaptation -- Technical Details -- Profiling Service Policy Specifications

-- System Architecture -- Prototype Profiling Support -- Evaluation --
 Measuring Profiling Overhead -- Measuring Profiling Accuracy -- Stress
 Testing of the Deployment and Financial Implications -- Evaluation
 Summary -- Related Work -- Conclusion -- References -- VM
 Placement in non-Homogeneous IaaS-Clouds -- Introduction --
 Overview of Our Approach -- User Provided Hints and Constraints --
 Synthesis of Dynamic Infrastructures -- Deployment Plan Production --
 Elastic Solver Service -- Evaluation -- Related Work -- Conclusions --
 References -- Service Discovery -- Place Semantics into Context:
 Service Community Discovery from the WSDL Corpus -- Introduction
 -- Framework for Service Community Discovery -- Community
 Discovery via NMTF -- Result Interpretation -- Objective Function --
 Semantic Extension Integration -- Computing the Semantic Extensions
 of the WSDL Corpus -- Semantic Extension Integration -- Empirical
 Study -- Evaluation Metrics -- Experiment Design and Parameter
 Setting -- Performance Comparison -- Related Work -- Service
 Community Discovery -- Service Search and Discovery -- Service
 Selection -- Conclusion and Future Directions -- References --
 WTCcluster: Utilizing Tags for Web Services Clustering -- Introduction
 -- Related Work -- WTCcluster -- Framework for Web Service Discovery
 -- Feature Extraction and Similarity Computation.
 Similarity Integration -- Tag Recommendation -- Experiment --
 Experiment Setup -- Performance of Web Service Clustering --
 Evaluation of Tag Recommendation Strategies -- Conclusion --
 References -- Similarity Function Recommender Service Using
 Incremental User Knowledge Acquisition -- Introduction --
 Preliminaries -- Community Data Graph -- Measuring Entity Similarity
 -- Overall Architecture -- Exploiting Community User Knowledge --
 Recommendation Rule Representation Model -- Matching
 Recommendation Rules -- Ranking Recommendation Rules --
 Incremental Knowledge Acquisition -- Knowledge Acquisition Method:
 Ripple Down Rule -- Acquiring Knowledge through Different Rule
 Types -- Attribute Type-Based Rule (Default Rule). -- Key Attribute-
 based Rule. -- Relationship-based Rule. -- Lexical Relation-based
 Rule. -- Implementation, Usage, and Evaluation -- Implementation --
 Usage Scenario of the Recommender Service -- Evaluation -- Related
 Work -- Conclusion and Future Work -- References -- Revealing
 Hidden Relations among Web Services Using Business Process
 Knowledge -- Introduction: Relations among Web Services -- Related
 Work -- Preliminaries -- The Extended Behavioral Profile --
 Formal Model -- Running Example -- Deriving a Global Behavioral
 Profile -- Merging Individual Behavioral Profiles -- Predicting Potential
 Resolutions for Unknown Relations (a?b) -- Experiments and Evaluation
 -- Discussion -- References -- Service Science and Management --
 Towards a Service System Ontology for Service Science -- Introduction
 -- Foundational Concepts of the Service Systems Worldview --
 Overview of Service Theories and Frameworks -- Analysis -- Discussion
 -- Conclusion and Future Work -- References -- Support for the
 Business Motivation Model in the WS-Policy4AMSC Language and
 MiniZnMASC Middleware -- Introduction -- Background and Related
 Work.
 WS-Policy4AMSC and MiniZnMASC -- Business Motivation Model (BMM)
 -- Other Related Work -- Extension of WS-Policy4AMSC and
 MiniZnMASC with Key BMM Constructs -- Evaluation -- Conclusions
 and Future Work -- References -- WS-Governance: A Policy Language
 for SOA Governance -- Introduction -- A Motivating Use Case -- Using
 WS-Policy for SOA Governance -- From WS-Policy to WS-Governance --
 SOA Modeling with SADL -- Specifying Governance Properties, and

Policy Assertions with GAL -- Automatic Consistency Checking through CSPs -- Checking for Consistency -- WS-Governance Tooling: GDA and GDE -- Related Work -- Conclusions and Future Work -- References -- QoS-Based Task Scheduling in Crowdsourcing Environments -- Introduction -- Related Work -- Crowdsourcing Platform Model -- Integration of Service Level Agreements (SLAs) -- Discussion -- Quality and Skill-Aware Crowdsourcing -- Skills and Suitability -- Worker and Consumer Communication -- Scheduling -- Profile Management -- Experiments -- Experiment Setup -- Experiment Types and Results -- Conclusion and Future Work -- References -- Service Security and Trust -- Model Driven Security Analysis of IDaaS Protocols -- Introduction -- Related Work -- Overview of Logic of Authentication -- Extending Belief Logic -- Reasoning about Users, Actions and Secrets -- Example: Analysis of SAML Web Single Sign-On -- Model Driven Security Protocol Analysis -- Automated Analysis of Belief Logics -- Overview -- Benefits of Model Driven Analysis -- Modeling of Extended Belief Logic -- Unification Algorithms -- OAuth Protocol Analysis -- Conclusion -- References -- Credibility-Based Trust Management for Services in Cloud Environments -- Introduction -- Related Work -- The Trust Management Framework -- Assumptions and Attack Models -- Trust Management Service -- Trust Feedback Collection and Assessment. Availability of the Trust Management Service.

Sommario/riassunto

This book constitutes the refereed proceedings of the 9th International Conference on Service-Oriented Computing, ICSOC 2011, held in Paphos, Cyprus, in December 2011. The 54 revised papers presented were carefully reviewed and selected from 184 submissions. The papers are organized in topical sections on business process modeling, quality of service, formal methods, XaaS computing, service discovery, service security and trust, service runtime infrastructures and service applications.
