

By Gustavo Alonso Web Services Concepts Architectures And Applications Data Centric Systems And Applications Softcover Reprint Of Hardcover 1st Paperback

This book constitutes the joint refereed proceedings of the two workshops held in conjunction with the 5th International Conference on Web Information Systems Engineering, WISE 2004 in Brisbane, Australia in November 2004. The 21 revised full papers and 5 revised short papers presented were carefully reviewed and selected for inclusion in the book. The papers are organized in topical sections on ontologies for networked systems, mobile learning, fragmentation versus integration perspectives of the web information systems discipline, and web services quality.

This book constitutes the joint refereed proceedings of nine international workshops held as part of OTM 2005 in Agia Napa, Cyprus in October/November 2005. The 145 revised full papers presented were carefully reviewed and selected from a total of 268 submissions. Topics addressed are agents, Web services and ontologies merging (AWeSOME 2005), context-aware mobile systems (CAMS 2005), grid computing and its application to data analysis (GADA 2005), inter-organizational systems and interoperability of enterprise software and applications (MIOS+INTEROP 2005), object-role modeling (ORM 2005), a PHD symposium (PhDS 2005), semantic-based geographical information systems (SeBGIS 2005), Web semantics (SWWS 2005), and ontologies, semantics and e-learning (WOSE 2005).

This book constitutes the thoroughly refereed postproceedings of the 5th International Workshop on Technologies for E-Services, TES 2004, held in Toronto, Canada in August 2004 in conjunction with VLDB 2004. The 12 revised full papers presented went through two rounds of reviewing and selection. Among the topics addressed are current issues on various aspects of e-services, in particular of Web services, such as Web service composition, Web service selection, formal Web service development, e-service coordination, wireless ad-hoc networking, b2b information services, enterprise application integration, and m-commerce.

Contains papers on the advances in Concurrent Engineering research and applications. This book focuses on developing methodologies, techniques and tools based on Web technologies required to support the key objectives of Concurrent Engineering.

International Conference, TCGOV 2005, Bolzano, Italy, March 2-4, 2005, Proceedings
Software Composition

OTM 2005 Workshops; OTM Confederated International Workshops and Posters, AWeSOME, CAMS, GADA, MIOS+INTEROP, ORM, PhDS, SeBGIS; SWWS, and WOSE 2005 2004; Agia Napa, Cyprus, October 31 - November 4, 2005; Proceedings

Semantic Web Services
Middleware 2004

5th International Conference, BPM 2007, Brisbane, Australia, September 24-28, 2007, Proceedings
Fundamental Approaches to Software Engineering

A paradigm shift is taking place in computer science: one generation ago, we learned to abstract from hardware to software, now we are abstracting from software to serviceware implemented through service-oriented computing. Yet ensuring interoperability in open, heterogeneous, and dynamically changing environments, such as the Internet, remains a major challenge for actual machine-to-machine integration. Usually significant problems in aligning data, processes, and protocols appear as soon as a specific piece of functionality is used within a different application context. The Semantic Web Services (SWS) approach is about describing services with metadata on the basis of domain ontologies as a means to enable their automatic location, execution, combination, and use. Fensel and his coauthors provide a comprehensive overview of SWS in line with actual industrial practice. They introduce the main sociotechnological components that ground the SWS vision (like Web Science, Service Science, and service-oriented architectures) and several approaches that realize it, e.g. the Web Service Modeling Framework, OWL-S, and RESTful services. The real-world relevance is emphasized through a series of case studies from large-scale R&D projects and a business-oriented proposition from the SWS technology provider Seekda. Each chapter of the book is structured according to a predefined template, covering both theoretical and practical aspects, and including walk-through examples and hands-on exercises. Additional learning material is available on the book website www.swsbook.org. With its additional features, the book is ideally suited as the basis for courses or self-study in this field, and it may also serve as a reference for researchers looking for a state-of-the-art overview of formalisms, methods, tools, and applications related to SWS.

The Definitive Guide to Building Web-Centric SOA with REST The World Wide Web is based on the most successful technology architecture in history. It has changed how we view, access, and exchange information and, with the advent of REST, it has also provided us with compelling ways to build and improve automation solutions. REST provides a great deal of guidance to ensure that an architecture and its automation logic are technically sound, though it is still your responsibility to build services that actually add value to your business. SOA with REST is the first comprehensive tutorial and reference for designing and building RESTful services as part of service-oriented solutions and in conjunction with service-oriented architecture (SOA). This book demonstrates that REST is not only a suitable medium for building truly service-oriented solutions, but also that the service-oriented architectural model is a necessary foundation for REST technology architectures to realize their full business potential. The authors provide thorough mapping of REST constraints and architectural goals with service-orientation principles and SOA characteristics. Using real-world examples, they show how to leverage REST's simplicity, flexibility, and low overhead without compromising the power or manageability of service-oriented solutions and architectures. This ebook will be valuable to IT architects, developers, and any practitioner seeking to use SOA and REST together.

Semantic Web services promise to automate tasks such as discovery, mediation, selection, composition, and invocation of services, enabling fully flexible automated e-business. Their usage, however, still requires a significant amount of human intervention due to the lack of support for a machine-processable description. In this book, Jos de Bruijn and his coauthors lay the foundations for understanding the requirements that shape the description of the various aspects related to Semantic Web services, such as the static background knowledge in the form of ontologies, the functional description of the service, and the

behavioral description of the service. They introduce the Web Service Modeling Language (WSML), which provides means for describing the functionality and behavior of Web services, as well as the underlying business knowledge, in the form of ontologies, with a conceptual grounding in the Web Service Modeling Ontology. Academic and industrial researchers as well as professionals will find a comprehensive overview of the concepts and challenges in the area of Semantic Web services, the Web Services Modeling Language and its relation to the Web Services Modeling Ontology, and an in-depth treatment of both enabling technologies and theoretical foundations.

An ontology is a formal description of concepts and relationships that can exist for a community of human and/or machine agents. The notion of ontologies is crucial for the purpose of enabling knowledge sharing and reuse. The Handbook on Ontologies provides a comprehensive overview of the current status and future perspectives of the field of ontologies considering ontology languages, ontology engineering methods, example ontologies, infrastructures and technologies for ontologies, and how to bring this all into ontology-based infrastructures and applications that are among the best of their kind. The field of ontologies has tremendously developed and grown in the five years since the first edition of the "Handbook on Ontologies". Therefore, its revision includes 21 completely new chapters as well as a major re-working of 15 chapters transferred to this second edition.

Third International Conference, ICDCIT 2006, Bhubaneswar, India, December 20-23, 2006

Principles, Patterns & Constraints for Building Enterprise Solutions with REST

The Web Service Modeling Language

Bridging People and Software Through Process Technology

First International Conference, IOT 2008, Zurich, Switzerland, March 26-28, 2008, Proceedings

Business Process Management

29th International Conference, PETRI NETS 2008, Xi'an, China, June 23-27, 2008, Proceedings

Semantic Web Services for Web Databases introduces an end-to-end framework for querying Web databases using novel Web service querying techniques. This includes a detailed framework for the query infrastructure for Web databases and services. Case studies are covered in the last section of this book. **Semantic Web Services For Web Databases** is designed for practitioners and researchers focused on service-oriented computing and Web databases.

Driven by the need and desire to reduce costs, organizations are faced with a set of decisions that require analytical scrutiny. **Enterprise Architecture A to Z: Frameworks, Business Process Modeling, SOA, and Infrastructure Technology** examines cost-saving trends in architecture planning, administration, and management. To establish a framework for discussion, this book begins by evaluating the role of Enterprise Architecture Planning and Service-Oriented Architecture (SOA) modeling. It provides an extensive review of the most widely deployed architecture framework models. In particular, the book discusses The Open Group Architecture Framework (TOGAF) and the Zachman Architectural Framework (ZAF) in detail, as well as formal architecture standards and all four layers of these models: the business architecture, the information architecture, the solution architecture, and the technology architecture. The first part of the text focuses on the upper layers of the architecture framework, while the second part focuses on the technology architecture. In this second section, the author presents an assessment of storage technologies and networking and addresses regulatory and security issues. Additional coverage includes high-speed communication mechanisms such as Ethernet, WAN and Internet communication technologies, broadband communications, and chargeback models. Daniel Minoli has written a number of columns and books on the high-tech industry and has many years of technical hands-on and managerial experience at top financial companies and telecom/networking providers. He brings a wealth of knowledge and practical experience to these pages. By reviewing the strategies in this book, CIOs, CTOs, and senior managers are empowered by a set of progressive approaches to designing state-of-the-art IT data centers.

This book constitutes the refereed proceedings of the ACM/IFIP/USENIX 9th International Middleware Conference 2008, held in Leuven, Belgium, in December 2008. The 21 revised full papers presented were carefully reviewed and selected from 117 submissions for inclusion in the book. The papers are organized in topical sections on platforms extended to new capabilities, advanced software engineering focusing on specific system properties, system management techniques, as well as components and system algorithms and properties.

This volume consists of the proceedings of the 29th International Conference on Applications and Theory of Petri Nets and Other Models of Concurrency (PETRI NETS 2008). The Petri Net conferences serve as annual meeting places to discuss the progress in the field of Petri nets and related models of concurrency. They provide a forum for researchers to present and discuss both applications and theoretical developments in this area. Novel tools and substantial enhancements to existing tools can also be presented. In addition, the conferences always welcome a range of invited talks that survey related domains, as well as satellite events such as tutorials and workshops. The 2008 conference had six invited speakers, two advanced tutorials, and four workshops. Detailed information about PETRI NETS 2008 and the related events can be found at <http://ictt.xidian.edu.cn/atpn-acsd2008>. The PETRI NETS 2008 conference was organized by the Institute of Computing Theory and Technology at Xidian University, Xi'an, China, where it

took place during June 23–27, 2008. We would like to express our deep thanks to the Organizing Committee, chaired by Zhenhua Duan, for the time and effort – vested in the conference and for all the help with local organization. We are also grateful for the financial support of the National Natural Science Foundation of China (NSFC) (Grant No. 60433010), Xidian University, and the Institute of Computing Theory and Technology at Xidian University.

Enterprise Integration Patterns

Concepts, Infrastructure, and Applications

4th International Workshop, SC 2005, Edinburgh, UK, April 9, 2005, Revised Selected Papers

Distributed Computing and Internet Technology

ACM/IFIP/USENIX 6th International Middleware Conference, Grenoble, France, November 28 – December 2, 2005, Proceedings

New Perspectives on Enterprise Decision-Making Applying Artificial Intelligence Techniques

Data Access in Workflow Management Systems

Desalination in Nuclear Power Plants presents the latest research on a variety of nuclear desalination techniques for different nuclear reactor systems; it includes also several aspects regarding competitiveness, sustainability, safety, and licensing process. Authors Alonso, del Valle, and Ramirez explore the possibilities of the cogeneration of water and electricity using a nuclear reactor. This book consolidates the latest research to provide readers with a clear understanding of the advantages and disadvantages of the thermal, membrane, and hybrid desalination processes, along with a comprehensive methodology to guide the reader on how to perform levelized cost analyses for water and electricity. The conditions for the coupling of nuclear reactors and desalination plants are presented, and techniques to maximize water and energy production and to reduce their corresponding costs are provided. Mathematical modeling techniques for different components of the power plant are also included based on mass and energy state equations, as well as different steam currents alternatives for coupling along with a proposed method for their evaluation.

The complexity of modern computer networks and systems, combined with the extremely dynamic environments in which they operate, is beginning to outpace our ability to manage them. Taking yet another page from the biomimetics playbook, the autonomic computing paradigm mimics the human autonomic nervous system to free system developers and administrators from performing and overseeing low-level tasks. Surveying the current path toward this paradigm, *Autonomic Computing: Concepts, Infrastructure, and Applications* offers a comprehensive overview of state-of-the-art research and implementations in this emerging area. This book begins by introducing the concepts and requirements of autonomic computing and exploring the architectures required to implement such a system. The focus then shifts to the approaches and infrastructures, including control-based and recipe-based concepts, followed by enabling systems, technologies, and services proposed for achieving a set of "self-*" properties, including self-configuration, self-healing, self-optimization, and self-protection. In the final section, examples of real-world implementations reflect the potential of emerging autonomic systems, such as dynamic server allocation and runtime reconfiguration and repair. Collecting cutting-edge work and perspectives from leading experts, *Autonomic Computing: Concepts, Infrastructure, and Applications* reveals the progress made and outlines the future challenges still facing this exciting and dynamic field.

Middleware provides an integration framework for multiple and potentially - verse computing platforms. It allows developers to engineer distributed appli- tions more easily, providing abstractions and primitives to handle distribution and coordination.

Middleware is constantly facing new challenges. Today ' s advances in comp- ing, including development of pervasive applications, exacerbates the diversity problem, introducing variations not only in terms of performance, but also in terms of environments and device characteristics. Software engineers are the- fore challenged both in the area of the development of new and scalable m- dleware systems, where open, heterogeneous, component-based platforms should provide richer functionality and services, and in the area of application devel- ment, where tools to simplify the use of middleware solutions are necessary. Software Engineering and Middleware is the premier workshop for the - search and practice community of software engineering working in both areas to

present and discuss new ideas in this field. SEM2004 was the fourth international workshop on software engineering and middleware of the EDO/SEM workshop series. Previous workshops of this series were successfully held in 2002, 2000 and 1999. Most of the proceedings have been published by Springer in the Lecture Notes in Computer Science series.

This book constitutes the refereed proceedings of the ACM/IFIP/USENIX International Conference on Distributed Systems Platforms, Middleware 2005, held in Grenoble, France in November/December 2005. The 18 revised full papers and 6 short papers presented were carefully reviewed and selected from 112 submissions. The papers are organized in topical sections on security and privacy, peer-to-peer computing, XML and service discovery, distribution and real time processing, publish/subscribe systems and content distribution, and middleware architecture.

Handbook on Ontologies

Frameworks, Business Process Modeling, SOA, and Infrastructure Technology

Third International Conference, Amsterdam, The Netherlands, December 12-15, 2005, Proceedings

Middleware 2005

Software Engineering and Middleware

Concepts, Architectures and Applications

Proceedings of the ... Ph. D. Retreat of the HPI Research School on Service-Oriented Systems Engineering

Like many other incipient technologies, Web services are still surrounded by a substantial level of noise. This noise results from the always dangerous combination of wishful thinking on the part of research and industry and of a lack of clear understanding of how Web services came to be. On the one hand, multiple contradictory interpretations are created by the many attempts to realign existing technology and strategies with Web services. On the other hand, the emphasis on what could be done with Web services in the future often makes us lose track of what can be really done with Web services today and in the short term. These factors make it extremely difficult to get a coherent picture of what Web services are, what they contribute, and where they will be applied. Alonso and his co-authors deliberately take a step back. Based on their academic and industrial experience with middleware and enterprise application integration

systems, they describe the fundamental concepts behind the notion of Web services and present them as the natural evolution of conventional middleware, necessary to meet the challenges of the Web and of B2B application integration. Rather than providing a reference guide or a "how to write your first Web service" kind of book, they discuss the main objectives of Web services, the challenges that must be faced to achieve them, and the opportunities that this novel technology provides. Established, as well as recently proposed, standards and techniques (e.g., WSDL, UDDI, SOAP, WS-Coordination, WS-Transactions, and BPEL), are then examined in the context of this discussion in order to emphasize their scope, benefits, and shortcomings. Thus, the book is ideally suited both for professionals considering the development of application integration solutions and for research and students interesting in understanding and contributing to the evolution of enterprise application technologies.

This book constitutes the proceedings of the 5th International Conference on Web Information Systems Engineering, WISE 2004, held in Brisbane, Australia in November 2004. The 45 revised full papers and 29 revised short papers presented together with 3 invited contributions were carefully reviewed and selected from 198 submissions. The papers are organized in topical sections on Web information modeling; payment and security; information extraction; advanced applications; performance issues; linkage analysis and document clustering; Web caching and content analysis; XML query processing; Web search and personalization; workflow management and enterprise information systems; business processes; deep Web and dynamic content; Web information systems design; ontologies and applicatoins; multimedia, user interfaces, and languages; and peer-to-peer and grid systems.

A unifying foundation to design and implement process-aware information systems This publication takes on the formidable task of establishing a unifying foundation and set of common underlying principles to effectively model, design, and implement process-aware information systems. Authored by leading authorities and pioneers in the field, Process-Aware Information Systems helps readers gain a thorough understanding of major concepts, languages, and techniques for building process-aware applications, including: * UML and EPCs: two of the most widely used notations for business process modeling * Concrete techniques for process design and analysis * Process execution standards: WfMC and BPEL * Representative commercial tools: ARIS, TIBCO Staffware, and FLOWer Each chapter begins with a description of the problem domain and then progressively unveils relevant concepts and techniques. Examples and illustrations are used extensively to clarify and simplify complex material. Each chapter ends with a set of exercises, ranging from simple questions to thought-provoking assignments. Sample solutions for many of the exercises are available on the companion Web site. Armed with a new and deeper understanding, readers are better positioned to make their own contributions to the field and evaluate various approaches to a particular task or problem. This publication is recommended as a textbook for graduate and advanced undergraduate students in computer science and information systems, as well as for professionals involved in workflow and business process management, groupware and teamwork, enterprise application integration, and business-to-business integration. A Solution's Manual is available online. An Instructor Support FTP site is also available.

From fundamental concepts and theories to implementation protocols and cutting-edge applications, the Handbook of Mobile Systems Applications and Services supplies a complete examination of the evolution of mobile services technologies. It examines service-oriented architecture (SOA) and explains why SOA and service oriented computing (SOC) will pl

Enterprise Architecture A to Z

ACM/IFIP/USENIX International Middleware Conference, Toronto, Canada, October 18-20, 2004, Proceedings

ACM/IFIP/USENIX 9th International Middleware Conference Leuven, Belgium, December 1-5, 2008 Proceedings

SOA with REST

Technologies for E-Services

Web Services

On the Move to Meaningful Internet Systems 2005

This book constitutes the refereed proceedings of the ACM/IFIP/USENIX International Conference on Distributed Systems Platforms, Middleware 2004, held in Toronto, Canada in October 2004. The 25 revised full papers presented together with an invited paper were carefully reviewed and selected from a total of 194 submissions. The papers are organized in topical sections on peer-to-peer computing; routing protocols and overlay; middleware for replication and overlay; middleware for replication and transactions; publish/subscribe systems; Web services: composition, integration, and interoperability; middleware for mobility; application servers, enterprise computing, and software engineering.

This book constitutes the refereed proceedings of the 8th International Conference on Fundamental Approaches to Software Engineering, FASE 2005, held in Edinburgh, UK in April 2005 as part of ETAPS. The 25 revised full papers presented together with an invited paper were carefully reviewed and selected from 105 submissions. The papers are organized in topical sections on Web services, graph grammars and graph transformations, components, product lines, theory, code understanding and validation, UML, and automatic proofs and provers.

Web Services Concepts, Architectures and Applications Springer Science & Business Media

This book presents different techniques and methodologies that used to help improve the decision-making process and

increase the likelihood of success in sector as follows: agriculture, financial services, logistics, energy services, health and others. This book collects and consolidates innovative and high-quality research contributions regarding the implementation techniques and methodologies applied in different industrial sectors. The scope is to disseminate current trends knowledge in the implementation of artificial intelligence techniques and methodologies in different fields as follows: supply chain, business intelligence, e-commerce, social media and others. The book contents are useful for Ph.D., Ph.D. students, master and undergraduate students, and professional and students in industrial engineering, computer science, information systems, data analytics and others.

Web Information Systems -- WISE 2004

... International Workshop, TES ..., Proceedings

Autonomic Computing

Semantic Web Services for Web Databases

Desalination in Nuclear Power Plants

Modeling Semantic Web Services

Handbook of Mobile Systems Applications and Services

Component-based software development is the next step after object-oriented programming that promises to reduce complexity and improve reusability. These advantages have also been identified by the industry, and consequently, over the past years, a large number of component-based techniques and processes have been adopted in many of these organizations. A visible result of this is the number of component models that have been developed and standardized. These models define how individual software components interact with each other and simplify the design process of software systems by allowing developers to choose from previously existing components. The development of component models is a first step in the right direction, but there are many challenges that cannot be solved by the development of a new component model alone. Such challenges are the adaptation of components, and their development and verification.

Software Composition is the premiere workshop to advance the research in component-based software engineering and its related fields. SC 2005 was the fourth workshop in this series. As in previous years, SC 2005 was organized as an event co-located with the ETAPS conference. This year's program consisted of a keynote on the revival of dynamic languages given by Prof. Oscar Nierstrasz and 13 technical paper presentations (9 full and 4 short papers). The technical papers were carefully selected from a total of 41 submitted papers. Each paper was thoroughly peer reviewed by at least three members of the program committee and consensus on acceptance was achieved by means of an electronic PC discussion. This LNCS volume contains the revised versions of the papers presented at SC 2005.

The TCGOV 2005 international conference on e-government was held at the Free University of Bozen-Bolzano during March 2-4, 2005. The conference was initiated by the working group "Towards Electronic Democracy" (TED) of the European Science Foundation and was jointly organized by the Free University of Bozen-Bolzano, the Municipality of Bozen-Bolzano, the TED Working Group, and the IFIP Working Group 8.5. The conference addressed a large spectrum of issues that are relevant and have to be investigated for a successful transition from the traditional form of government to a new form known as e-government. The main focus was on the following topics: - improving citizen participation and policy making (e-democracy) - government application integration - semantic Web technologies for e-government - security aspects for e-government services Two sessions were dedicated to e-democracy, an emerging area within government that seeks to enhance democratic processes and provide increased opportunities for individuals and communities to be involved in governmental decisions. The contributions of these two sessions cover more fundamental results and insights as well as experiences from different countries. Another focus was on government application integration and the use of semantic Web technologies, which are important technical aspects on the agenda of e-government research. Different architectures for the integration and orchestration of distributed services and processes were presented along with two case studies. Three papers about Semantic Web technologies discussed the use of ontologies in e-government.

This book constitutes the refereed proceedings of the Third International Conference on Distributed Computing and Internet Technology, ICDCIT 2006, held in Bhubaneswar, India in December 2006. The 24 revised full papers and 10 revised short papers presented together with 1 keynote address and 1 invited talk cover the main areas distributed computing, internet technology, system security, data mining, and software engineering.

This volume contains the proceedings of the Internet of Things (IOT) Conference 2008, the first international conference of its kind. The conference took place in Zurich, Switzerland, March 26-28, 2008. The term 'Internet of Things' has come to describe a number of technologies and research disciplines that enable the internet to reach out into the real world of physical objects. Technologies such as RFID, short-range wireless communications, real-time localization, and sensor networks are becoming increasingly common, bringing the 'Internet of Things' into industrial, commercial, and domestic use. IOT 2008 brought together leading researchers and practitioners, from both academia and industry, to facilitate the sharing of ideas, applications, and research results. IOT 2008 attracted 92 high-quality submissions, from which the technical program committee accepted 23 papers, resulting in a competitive 25% acceptance rate. In total, there were over 250 individual authors from 23 countries, representing both academic and industrial organizations. Papers were selected solely on the quality of their blind peer reviews. We were fortunate to draw on the combined experience of our 59 program committee members, coming from the most prestigious universities and research labs in Europe, North America, Asia, and Australia. Program committee members were aided by no less than 63 external reviewers in this rigorous process, in which each committee member wrote about 6 reviews. The total of 336 entered reviews resulted in an average of 3.7 reviews per paper, or slightly more than 1000 words of feedback for each paper submitted.

5th International Workshop, TES 2004, Toronto, Canada, August 29-30, 2004, Revised Selected Papers

Next Generation Concurrent Engineering

Web Services: Concepts, Architectures And Applications

Feature Interactions in Software and Communication Systems IX

5th International Conference on Web Information Systems Engineering, Brisbane, Australia, November 22-24, 2004, Proceedings

E-Government: Towards Electronic Democracy

8th International Conference, FASE 2005, Held as Part of the Joint European Conferences on Theory and Practice of Software, ETAPS 2005, Edinburgh, UK, April 4-8, 2005, Proceedings

This volume provides an overview and an understanding of REST (Representational State Transfer). Discussing the constraints of REST t

focuses on REST as a type of web architectural style. The focus is on applying REST beyond Web applications (i.e., in enterprise environments reusing established and well-understood design patterns when doing so. The reader will be able to understand how RESTful systems can be designed and deployed, and what the results are in terms of benefits and challenges encountered in the process. Since REST is relatively new as a design paradigm for Web Services, the more advanced part of the book collects a number of challenges to some of the assumptions and constraints of REST. It looks at current research work on how REST can be extended and applied to scenarios that often are considered not to be a good match for REST. This work will help readers to reach a deeper understanding of REST on a practical as well as on an advanced level.

With recent advances in radio-frequency identification (RFID) technology, sensor networks, and enhanced Web services, the original Web is continuing its evolution into what is being called the Web of Things and Services. Such a Web will support an ultimately interactive environment where everyday physical objects such as buildings, sidewalks, and commodities become recognizable, addressable, and even controllable. This ubiquitous Web. This integration of the physical and virtual worlds will fundamentally impact the way we live and in doing so afford tremendous business opportunities with great human benefit, such as support services to keep the elderly independent, and intelligent traffic management to cut wasted hours from every day. More efficient supply chains, improved environmental monitoring, better access to health services ...

Enabling Context-Aware Web Services: Methods, Architectures, and Technologies compiles the newest developments and advances driving the Web forward. With contributions from leading researchers across the world this pioneering work bridges the gap between context-aware Web services. A comprehensive presentation of what's already accomplished and what is possible, the chapters of this book are systematically organized into three major sections: Methods focuses on the principle of context awareness in Web services and various ways to model those services at the specification level. Architectures details the infrastructures, frameworks, and standards needed to build context-aware Web services. Technologies presents a cornucopia of techniques adapted from once isolated research areas including semantic Web, database, and artificial intelligence development, as well as formal methods being employed to improve the development of context-aware Web services. Researchers, engineers, entrepreneurs, and educators across any number of fields will find new ideas worth considering, jumping-off points for developing improved services and applications, and seeds for business ventures that efficiently deliver needed products, information, or services. The possibilities are limited only by what we dare to imagine.

This book constitutes the refereed proceedings of the 5th International Conference on Business Process Management, BPM 2007, held in Melbourne, Australia, in September 2007. The papers are organized in topical sections on business process maturity and performance, business process case studies, compliance and change, process configuration and execution, formal foundations of BPM, business process mining, and security in BPM.

Melanie Holloway explores a cloud broker offering service level agreement negotiation and monitoring as a service to consumers. She presents a negotiation mechanism, which enables the achievement of economically efficient agreements, and an approach for reliable consumer side monitoring in conjunction with strategies for robust monitor placement. The author addresses the loss of control of consumers over cloud services, specifically quality of service, when using services from the cloud. Basically, the cloud computing paradigm places the responsibility for service management on the provider side. Hence, the control over cloud service performance is very limited on the consumer side.

REST: From Research to Practice

WISE 2004 International Workshops, Brisbane, Australia, November 22-24, 2004, Proceedings

Middleware 2008

4th International Workshop, SEM 2004, Linz, Austria, September 20-21, 2004 Revised Selected Papers

Leading the Web in Concurrent Engineering

Service Level Management in Cloud Computing

This publication deals with the feature interaction problem in telecommunication systems. In this domain, an interaction occurs when one telecommunication feature/service modifies or subverts the operation of another one. Undesired interactions can both lower this quality and delay service provisioning. Therefore, the problem of feature interactions in telecommunication systems is of great importance. In the past decade, a lot of attention has been devoted to the development of methods for detection and resolution of feature interactions. However, this feature interaction phenomenon is not unique to the domain of telecommunication systems. It can also occur in any large software system that is subject to continuous changes. All the submitted papers in this publication have been peer reviewed by at least two reviewers drawn from industry or academia.

Energy Efficiency in Air Transportation explores the relationship between air transportation and energy use, starting with an analysis of air transport energy sources and their potential development. The book examines how different elements of the air transport system make use of energy, with an analysis of various methods for optimizing energy consumption. The book covers the consequences of energy use in terms of economics, environmental impact and sustainable development, with a review of the existing and proposed regulatory measures addressing those factors. Aeronautical and air transport engineers interested in aerial vehicle systems design, as well as public administrators and regulators concerned with energy efficiency or environmental issues in air transport, will benefit greatly from this comprehensive reference, which captures necessary background information along with the newest developments in the field. Examines new developments in energy efficiency in the air transport field Includes exergy analyses of aerial vehicles and systems Shows the environmental impact from fuel use including local air quality, consumption of non-renewable materials and contribution to climate change Discusses the CO2 emissions certification required by ICAO for new aircraft models

This book constitutes the refereed proceedings of the Third International Conference on Service-Oriented Computing, ICSOC 2005, held in Amsterdam, The Netherlands in December 2005. The 32 revised full papers and 14 short papers presented together with 8 industrial and demo papers were carefully reviewed and selected from over 200 submissions. The papers are organized in topical sections on vision and motivation, service specification and modelling, service design and validation, service selection and discovery, service composition and aggregation, service monitoring, service management, semantic Web and grid services, as well as security, exception handling, and SLAs.

Process-Aware Information Systems

Pareto-Efficient Negotiations, Reliable Monitoring, and Robust Monitor Placement

Service-Oriented Computing – ICSOC 2005

Energy Efficiency in Air Transportation

Methods, Architectures, and Technologies

Applications and Theory of Petri Nets

