

Soa Principles Of Service Design Prentice Hall Service Oriented Computing Series From Thomas Erl

This book will provide answers to the most common questions that face enterprise leaders concerning service oriented architecture development lifecycle initiatives. It is a guide for service-oriented projects. The tentative chapters are: (1) Introduction to Service Modeling; (2) Service Polymorphism; (3) Service Typing and Service Structure Model; (4) Service Development Lifecycle Model; (5) Service Conceptualization; (6) Service Discovery and Analysis; (7) Business Service Architecture; (8) Service Design and Realization; (9) Service Architecture Conceptualization; (10) Service Architecture Modeling.

"The New Simple" is a concise and indispensable handbook for finally understanding exactly what Service Oriented Architecture is. Split into three clear sections, in this book you'll learn from both theory as well as step-by-step implementation examples to aid in your understanding of this often poorly-articulated industry term. If you are an architect who wants to be completely clear in your understanding of what SOA is, then this book is essential. In fact, anyone (designer, developer, administrator or team lead) who is implementing or about to implement an architecture in an IT environment should not miss out on "SOA Made Simple." Some previous experience with general software architecture is required, but this guide will tell you everything you need to know about SOA in a clear and easy fashion.

This book constitutes the refereed proceedings of the 20th International Conference on Advanced Information Systems Engineering, CAISE 2008, held in Montpellier, France, in June 2008. The 35 revised full papers and 9 revised short papers presented together with 1 keynote lecture were carefully reviewed and selected from 273 submissions. The papers are organized in topical sections on duality and process modelling, interoperability of IS and enterprises, refactoring, information systems in e-government and life-science, knowledge patterns for IS engineering, requirements engineering for IS, conceptual schema modelling, service infrastructure, service evolution, flexible information technologies, metrics and process modelling, information system engineering, and IS development with ubiquitous technologies.

The Definitive Guide to Service Design: Governing Shared Services On-Premise and in the Cloud is the result of a multi-year project to collect proven industry practices for establishing IT governance controls specific to the adoption of SOA and service-orientation. Authored by world-renowned experts in the fields of SOA, IT governance, and cloud computing, this comprehensive book provides clear direction as to what does and does not constitute SOA governance and then steps the reader through the most important industry governance practices, as they pertain to individual SOA project lifecycle stages. With a consistent, vendor-neutral focus, and with the help of case study examples, the authors demonstrate how to define and position precepts, organizational roles, processes, standards, and metrics. Readers benefit from thorough and visually depicted cross-references and mapping between roles, processes, precepts, and project stages, enabling them to fully explore dynamics and dependencies and thereby learn how to use these governance controls to create their own custom SOA governance systems. This important title will be valuable to every practitioner concerned with making SOA work, including senior IT managers, project managers, architects, analysts, developers, administrators, QA professionals, security specialists, and cloud computing professionals. Topic Areas Defining SOA governance Establishing an SOA governance office and program Working with proven SOA governance precepts and processes Identifying organizational roles and relating them to SOA governance Associating design-time and runtime SOA project stages with SOA governance controls Governance considerations specific to shared services Roles, precepts, and factors specific to cloud-based services Understanding and categorizing SOA governance products and technologies Applying governance controls as early as the planning stages and measuring their success in subsequent stages Using vitality triggers to govern shared services on an on-going basis SOA governance controls that pertain to business information documents and policies

SOA Principles of Service Design
Security Engineering for Service-Oriented Architectures

Understanding SOA with Web Services
Principles, Techniques, and Standards

Service-oriented Architecture
Aligning Principles, Practices, and Culture

This book is a design handbook and provides skills to successfully design, implement, and optimize business processes on top of SOA. Starting with business process modeling, it shows design principles to architect sound process architectures. It presents best practices for modeling business processes using BPMN, together with design principles for services and composite applications. It provides detailed coverage of how to prepare business processes for execution. An in-depth explanation of human interactions is given and auto principles and best practices for using rules. Moving on, Adaptive Case Management principles are explained, along with the reach of business processes to mobile devices and ensuring multichannel interactions. Business activity monitoring, event-driven architectures, complex event processing in relation to business processes, and enabling integration with events and IoT devices are explained. The design principles and best practices are demonstrated in a practical way on a rental car use case.

Reap the benefits of increased ROI by integrating Service-Oriented Design and XML. Web services into your IT infrastructure.

"Service Oriented Architecture is a hot, but often misunderstood topic in IT today. Thomas articulates the concepts, specifications, and standards behind service orientation and Web Services. For enterprises adopting SOA, there is detailed advice for service-oriented analysis, planning, and design. This book is a must read!" --Alex Lynch, Principal Consultant, Microsoft Enterprise Services "One primary objective of applying SOA in design is to provide business value to the solutions we build. Understanding the right approach to analyzing, designing, and developing service-oriented solutions is critical. Thomas has done a great job of demystifying SOA in practical terms with his book." --Rick Weaver, IBM Senior Consulting Certified SW IT Specialist "A pragmatic guide to SOA principles, strategy, and best practices that distills the hype into a general framework for approaching SOA and clearly makes this a useful complement to his Field Guide." --Kevin P. Davis, PhD, Software Architect "This book is an excellent guide for architects, developers, and managers who are already working with or are considering developing Web Services or Service-Oriented Architecture solutions. The book is divided into four sections. In the first section the fundamental technologies of XML, Web Services, and Service-Oriented Architectures are described in detail with attention given to emerging standards. The book is well written and very thorough in its coverage of the subject. I recommend this book highly to anyone interested in enterprise level service architectures." --Adam Hock, President and CTO, Broadstrokes, Inc. Additional praise quotes are published at: www.soabooks.com/reviews.asp The foremost "how-to" guide to SOA Service-Oriented Architecture (SOA) is at the heart of a revolutionary computing platform that is being adopted world-wide and has earned the support of every major software provider. In Service-Oriented Architecture: Concepts, Technology, and Design, Thomas Erl presents the first end-to-end tutorial that provides step-by-step instructions for modeling and designing service-oriented solutions from the ground up. Erl uses more than 125 case study examples and over 300 diagrams to illuminate the most important facets of building SOA platforms: goals, obstacles, concepts, technologies, standards, delivery strategies, and processes for analysis and design. His book's broad coverage includes Detailed step-by-step processes for service-oriented analysis and service-oriented design An in-depth exploration of service-orientation as a distinct design paradigm, including a comparison to object-orientation A comprehensive study of SOA support in .NET and J2EE development and runtime platforms Descriptions of over a dozen key Web services technologies and WS-* specifications, including explanations of how they interrelate and how they are positioned within SOA The use of "In Plain English" sections, which describe complex concepts through non-technical analogies Guidelines for service-oriented business modeling and the creation of specialized service abstraction layers A study contrasting past architectures with SOA and reviewing current industry influences Project planning and the comparison of different SOA delivery strategies The goal of this book is to help you attain a solid understanding of what constitutes contemporary SOA along with step-by-step guidance for realizing its successful implementation. About the Web Sites Erl's Service-Oriented Architecture (SOA) website, <http://www.soabooks.com> provides a variety of content resources and <http://www.soaspeaks.com> supplies a descriptive portal to referenced specifications. Copyright Pearson Education. All rights reserved.

The Definitive Guide to Service Engineering: The key to succeeding with service-oriented architecture (SOA) is in comprehending the meaning and significance of its most fundamental building block: the service. It is through an understanding of service design that truly "service-oriented" solution logic can be created in support of achieving the strategic goals associated with SOA and service-oriented computing. Bestselling SOA author Thomas Erl guides you through a comprehensive, insightful, and visually rich exploration of the service-orientation design paradigm, revealing exactly how services should and should not be designed for real-world SOA.

SOA Design Patterns
Soa Made Simple

Java SOA Cookbook
Web Services and SOA

Concepts, Technology & Architecture
SOA Governance

This book fills a gap between high-level overview texts that are often too general and low-level detail oriented technical handbooks that lose sight the "big picture". This book discusses SOA from the low-level perspective of middleware, various XML-based technologies, and basic service design. It also examines broader implications of SOA, particularly where it intersects with business process management and process modeling. Concrete overviews will be provided of the methodologies in those fields, so that students will have a hands-on grasp of how they may be used in the context of SOA.

This comprehensive text explains the principles and practice of Web services and relates all concepts to practical examples and emerging standards. Its discussions include: Ontologies Semantic web technologies Peer-to-peer service discovery Service selection Web structure and link analysis Distributed transactions Process modelling Consistency management. The application of these technologies is clearly explained within the context of SOA and clearly makes this a useful complement to his Field Guide." --Kevin P. Davis, PhD, Software Architect "This book is an excellent guide for architects, developers, and managers who are already working with or are considering developing Web Services or Service-Oriented Architecture solutions. The book is divided into four sections. In the first section the fundamental technologies of XML, Web Services, and Service-Oriented Architectures are described in detail with attention given to emerging standards. The book is well written and very thorough in its coverage of the subject. I recommend this book highly to anyone interested in enterprise level service architectures." --Adam Hock, President and CTO, Broadstrokes, Inc. Additional praise quotes are published at: www.soabooks.com/reviews.asp The foremost "how-to" guide to SOA Service-Oriented Architecture (SOA) is at the heart of a revolutionary computing platform that is being adopted world-wide and has earned the support of every major software provider. In Service-Oriented Architecture: Concepts, Technology, and Design, Thomas Erl presents the first end-to-end tutorial that provides step-by-step instructions for modeling and designing service-oriented solutions from the ground up. Erl uses more than 125 case study examples and over 300 diagrams to illuminate the most important facets of building SOA platforms: goals, obstacles, concepts, technologies, standards, delivery strategies, and processes for analysis and design. His book's broad coverage includes Detailed step-by-step processes for service-oriented analysis and service-oriented design An in-depth exploration of service-orientation as a distinct design paradigm, including a comparison to object-orientation A comprehensive study of SOA support in .NET and J2EE development and runtime platforms Descriptions of over a dozen key Web services technologies and WS-* specifications, including explanations of how they interrelate and how they are positioned within SOA The use of "In Plain English" sections, which describe complex concepts through non-technical analogies Guidelines for service-oriented business modeling and the creation of specialized service abstraction layers A study contrasting past architectures with SOA and reviewing current industry influences Project planning and the comparison of different SOA delivery strategies The goal of this book is to help you attain a solid understanding of what constitutes contemporary SOA along with step-by-step guidance for realizing its successful implementation. About the Web Sites Erl's Service-Oriented Architecture (SOA) website, <http://www.soabooks.com> provides a variety of content resources and <http://www.soaspeaks.com> supplies a descriptive portal to referenced specifications. Copyright Pearson Education. All rights reserved.

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Service Design Patterns
Principles, Patterns & Constraints for Building Enterprise Solutions with REST

Analysis and Design for Services and Microservices
Service-Driven Approaches to Architecture and Enterprise Integration

Requirements, Models and Methods
Learning WCF

In cooperation with experts and practitioners throughout the SOA community, best-selling author Thomas Erl brings together the de facto catalog of design patterns for SOA and service-orientation. More than three years in development and subjected to numerous industry reviews, the 85 patterns in this full-color book provide the most successful and proven design techniques to overcome the most common and critical problems to achieving modern-day SOA. Through numerous examples, individually documented pattern profiles, and over 400 color illustrations, this book provides in-depth coverage of:

- Patterns for the design, implementation, and governance of service inventories – collections of services representing individual service portfolios that can be independently modeled, designed, and evolved.
- Patterns specific to service-level architecture which pertain to a wide range of design areas, including contract design, security, legacy encapsulation, reliability, scalability, and a variety of implementation and governance issues.
- Service composition patterns that address the many aspects associated with combining services into aggregate distributed solutions, including topics such as runtime messaging and message design, inter-service security controls, and transformation.
- Compound patterns (such as Enterprise Service Bus and Orchestration) and recommended pattern application sequences that establish foundational processes. The book begins by establishing SOA types that are referenced throughout the patterns and then form the basis of a final chapter that discusses the architectural impact of service-oriented computing in general. These chapters bookend the pattern catalog to provide a clear link between the patterns, the strategic goals, and network policies. The presentation of the intellectual underpinnings of Web services comes from several key disciplines, such as databases, distributed computing, artificial intelligence, and multi-agent systems. Ideas from these disciplines are used in the context of Web services and service-based applications. Featuring an accompanying website and teacher's manual that includes a complete set of transparencies for lectures, copies of open-source software for exercises and working implementations, and resources to conduct course projects, this book makes an excellent graduate textbook. It will also prove an invaluable reference and training tool for practitioners.

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availability solutions Understanding how to incorporate business process management (BPM) and business process monitoring into the enterprise architecture Whether you're defining an enterprise architecture or delivering individual SOA projects, this book will give you the practical advice you need to get the job done.

"This book could be described as an encyclopedia of service design-Erl leaves nothing to chance. Indispensable." -Steve Birkel, Chief IT Technical Architect, Intel Corp. "An absolute pleasure to read...the best SOA book I've read. A book I would recommend to all of my colleagues; it provides much insight to the topics often overlooked by most books in this genre...the visuals were fantastic." -Brandon Bohling, SOA Architecture and Strategy, Intel Corporation "This book is a milestone in SOA literature. For the first time we are provided with a practical guide on defining service characteristics and service design principles for SOA from a vendor-agnostic viewpoint. It's a great reference for SOA discovery, adoptions, and implementation projects." -Canyang Kevin Liu, Principal Enterprise Architect, SAP Americas, Inc. "I liked this book. It contains extremely important material for those who need to design services." -Farzin Yashar, IBM SOA Advanced Technologies "This book does a great job laying out benefits, key ideas and design principles behind successfully adopting service-oriented computing. At the same time, the book openly addresses challenges, risks and trade-offs that are in the way of adopting SOA in the real-world today. It moves away from ivory-tower views of service orientation, but still lays out a strong vision for SOA and outlines the changes necessary to realize the full potential." -Christoph Schittko, Senior Architect, Microsoft "I recommend this book to any SOA practitioner who wishes to empower themselves in making service design real...gives readers the 360° view into service design [and] gives SOA practitioners the depth and understanding needed into the principles of SOA to assist in the design of a mature and successful SOA program." -Stephen G. Bennett, Americas SOA Practice Lead, BEA Systems "SOA projects are most successful when they are based on a solid technical foundation. Well accepted and established design principles are part of this foundation. This book takes a very structured approach at defining the core design principles for SOA, thus allowing the reader to immediately applying them to a project. Each principle is formally introduced and explained, and examples are given for how to apply it to a real design problem. A 'must read' for any architect, designer or developer of service oriented solutions." -Andre Tost, Senior Technical Staff Member, IBM Software Group "There are few references for SOA that give you the nuts and bolts and this one is at the top of the list. Well written and valuable as a reference book to any SOA practitioner." -Dr. Mohamad Afshar, Director of Product Management, Oracle Fusion Middleware, Oracle Corporation "A thorough examination of the considerations of service design. Both seasoned SOA practitioners and those endeavoring to realize services can benefit from reading this book." -Bill Draven, Enterprise Architect, Intel Corporation "There are very few who understand SOA like Thomas Erl does! The principle centric description of service orientation from Thomas canonizes the underpinnings of this important paradigm shift in creating agile and reusable software capabilities. The principles, so eloquently explained, leave little room for any ambiguity attached to the greater purpose of SOA. Most organizations today are creating services in a bottoms-up approach, realizing composition and reuse organically. The time is ripe for a book like this that prepares architects for a principle centric approach to SOA." -Hanu Kommalapati, Architect, Microsoft Corporation "Outstanding SOA literature uniquely focused on the fundamental services design with thorough and in-depth study on all practical aspects from design principles to methodologies. This book provides a systematic approach for SOA adoption essential for both IT management and professionals." -Robin Chen, PhD, Google, Inc. "Thomas Erl's books are always densely filled with information that's well structured. This book is especially insightful for Enterprise Architects because it provides great context and practical examples. Part 1 of the book alone is worth getting the book for." -Markus Zirn, Senior Director, Product Management, Oracle Corporation "A very clear discussion of the subject matter. Provides a good structure that facilitates understanding and readily highlights key points." -Kareem Yusuf, Director of SOA Strategy and Planning, IBM Software Group "I am very impressed. Comprehensive. Educative. This book helped me to step back and look at the SOA principles from broader perspective. I'd say this is a must-read book for SOA stakeholders." -Radovan Janecek, Director R&D, SOA Center, Hewlett-Packard "Very valuable guidance for understanding and applying SOA service design principles with concrete examples. A must read for the practitioner of SOA service design." -Umit Yalcinalp, PhD, Standards Architect, SAP "This book really does an excellent job of explaining the principles underpinning the value of SOA...Erl goes to great length to explain and give examples of each of the 8 principles that will significantly increase the readers ability to drive an SOA service design that benefits both business and IT." -Robert Laird, IT Architect, IBM EAI/SOA Advanced Technologies Group "This book strikes a healthy balance between theory and practice. It is a perfect complement to the SOA series by the author." -Prakash Narayan, Sun Microsystems "If you are going to be designing, developing, or implementing SOA, this is a must have book." -Jason "AJ" Comfort Sr., Booz Allen Hamilton "An excellent book for anyone who wants to understand service-orientation and the principles involved in designing services...a clear, concise and articulate exploration of the eight design principles involved in analyzing, designing, implementing, and maintaining services..." -Anish Karmarkar, Oracle Corporation "Very well written, succinct, and easy to understand." -Raj Balasubramanian, IBM Software Group "Acomprehensive exploration of the issues of service design which has the potential to become the definitive work in this area." -James Pasley, Chief Technology Officer, Cape Clear Software "An excellent addition to any SOA library: it covers a wide range of issues in enough detail to be a valuable asset to anyone considering designing or using SOA based technologies." -Mark Little, Director of Standards, Red Hat "This book communicates complex concepts in a clear and concise manner. Examples and illustrations are used very effectively." -Darryl Hogan, Senior Architect, Microsoft "A work of genius...Offers the most comprehensive and thorough explanation on the principles of service design and what it means to be 'service oriented.'" -Erl's treatment of the complex world of service oriented architecture is pragmatic, inclusive of real world situations and offers readers ways to communicate these ideas through illustrations and well formulated processes." -David Michalowitz, MITRE Corporation "This is the book for the large organization trying to rationalize its IT assets and establish an agile platform for the future. By highlighting risk and rewards, Thomas Erl brings clarity to how Service Orientation can be applied to ensure a responsive IT organization. This book finally brings software engineering principles to address the real world development challenges being faced. To effectively serve the business, let alone embrace SOA, everyone involved should be familiar with the concepts investigated here. Thomas Erl thoroughly clarifies the nuances and defines the practice of service design. We expect that this will become a classic text in software engineering, corporate training and colleges." -Cory Isaacson, President, Rogue Wave Software and Ravi Palepu, SOA Author and Speaker "Thomas Erl does a great job...an easy read." -Michael H. Sor, Booz Allen Hamilton "...a must read for SOA Architects to develop a firm foundation and understanding of the principles (and trade-offs) that make up a good SOA service. After reading this book, it finally 'clicked' as to why a properly designed SOA system is different (and better) than a system based on previous enterprise architectures." -Fred Ingham, Platinum Solutions Inc. "Lays a tremendous foundation for business and technical workers to come to common terms and expectations...incredibly enlightening to see the details associated with achieving the SOA vision." -Wayne P. Ariola, Vice President of Strategy, Parasoft "Erl does] and excellent job of addressing the breadth of [his] audience to present to those new to SOA and weaved in enough detail to assist those who are already actively involved in SOA development." -R. Perry Smith, Application Program Manager, EDS/OnStar "It is easy to miss the big picture of what SOA means for the design of larger scale systems amidst the details of WS technologies. Erl helps provide a broader perspective, surveying the landscape from a design standpoint." -Jim Clune, Chief Architect, Parasoft "Lays a firm foundation for the underlying principles of good service design. Cuts through the hype and provides a cogent resource for improving architectural judgment on SOA projects." -Jim Murphy, Vice President of Product Management, Mindreef, Inc. "The first book to concisely, gradually and comprehensively explain how to apply SOA principles into enterprise-level software design. It is an excellent book." -Robin G. Qiu, Ph.D., Division of Engineering and Information Science, Pennsylvania State University "I really think that this is a very useful book that a lot of people really need out there in the industry." -Dr. Arnaud Simon, Principal Software Engineer, Red Hat "...indispensable companion to designing and implementing a service-oriented architecture. It condenses all information necessary to design services and is the most relevant source I know if in the field." "[This book is] not only helpful, but fundamental to successfully designing an SOA." -Phillipp Offermann, Research Analyst, University of Berlin "Service-Oriented Architecture is an important topic in IT today. Its vast scope could span an organization's enterprise. Designing it properly is a major undertaking. This book provides timely, expert and comprehensive discussions on the principles of service design. Thomas has a keen sense in identifying the subtle points of various subjects and explains them in an easy-to-understand way. The book is a valuable resource for IT professionals working in SOA." -Peter H. Chang, PhD, Associate Professor of Information Systems, Lawrence Technological University The Definitive Guide to Service Engineering The key to succeeding with service-oriented architecture (SOA) is in comprehending the meaning and significance of its most fundamental building block: the service. It is through an understanding of service design that truly "service-oriented" solution logic can be created in support of achieving the strategic goals associated with SOA and service-oriented computing. Bestselling SOA author Thomas Erl guides you through a comprehensive, insightful, and visually rich exploration of the service-orientation design paradigm, revealing exactly how services should and should not be designed for real-world SOA. This book's in-depth coverage includes Over 240 full-color illustrations. A concise introduction to SOA and service-oriented computing concepts and benefits. A thorough exploration of the service-orientation design paradigm as represented by eight specific design principles. A comparison of service-oriented and object-oriented concepts and principles and a clear definition of what qualifies as "service-oriented" logic. Detailed coverage of four different forms of service-related design granularity. An exhaustive examination of service contracts, with an emphasis on standardization, abstraction, and the utilization of WS-Policy, XML Schema, and WSDL definitions. A comprehensive study of positive and negative service-related coupling types with an emphasis on the requirements to attaining a suitable level of loose coupling. An inside look into how commercial design approaches are incorporated to achieve truly agnostic and reusable service logic. Techniques for maximizing service reliability, scalability, and performance by instilling high levels of autonomy and emphasizing stateless design. Approaches for positioning services as highly discoverable and interpretable enterprise resources. Unprecedented coverage of how to design services for participation in complex compositions. The definition of concrete links between each design principle and the strategic goals and benefits of SOA and service-oriented computing. Numerous cross-references to key design patterns documented separately in SOA: Design Patterns. www.prenhallprofessional.com www.soabooks.com www.soasystems.com Preface xxv Chapter 1: Introduction 1 Chapter 2: Case Study Background 19 Part I: Fundamentals Chapter 3: Service-Oriented Computing and SOA 25 Chapter 4: Service-Orientation 67 Chapter 5: Understanding Design Principles 103 Part II: Design Principles Chapter 6: Service Contracts (Standardization and Design) 125 Chapter 7: Service Coupling (Intra-Service and Consumer Dependencies) 163 Chapter 8: Service Abstraction (Information Hiding and Meta Abstraction Types) 211 Chapter 9: Service Reusability (Commercial and Agnostic Design) 253 Chapter 10: Service Autonomy (Processing Boundaries and Control) 293 Chapter 11: Service Statelessness (State Management Deferral and Stateless Design) 325 Chapter 12: Service Discoverability (Interpretability and Communication) 361 Chapter 13: Service Composability (Composition Member Design and Complex Compositions) 387 Part III: Supplemental Chapter 14: Service-Orientation and Object-Orientation: A Comparison of Principles and Concepts 445 Chapter 15: Supporting Practices 477 Chapter 16: Mapping Service-Orientation Principles to Strategic Goals 497 Appendices Appendix A: Case Study Conclusion 513 Appendix B: Process Descriptions 517 Appendix C: Principles and Patterns Cross-Reference 529 Additional Resources 533 About the Author 535 About the Photos 537 Index 539 Information Technology professionals can use this book to move beyond the excitement of web services and service oriented architecture (SOA) and begin the process of finding actionable ideas to innovate and create business value. In Enterprise SOA: Designing IT for Business Innovation, SAP's blueprint for putting SOA to work is analyzed from top to bottom. In addition to design, development, and architecture, vital contextual issues such as governance, security, change management, and culture are also explored. This comprehensive perspective reduces risk as IT departments implement ESA, a sound, flexible architecture for adapting business processes in response to changing market conditions. This book answers the following questions: What forces created the need for Enterprise Services Architecture? How does ESA enable business process innovation? How is model-driven development used at all levels of design configuration, and deployment? How do all the layers of technology that support ESA work together? How will composite applications extend business process automation? How does ESA create new models for IT governance? How can companies manage disruptive change? How can enterprise services be discovered and designed? How will the process of adapting applications be simplified? Based on extensive research with experts from the German software company SAP, this definitive book is ideal for architects, developers, and other IT professionals who want to understand the technology and business relevance of ESA in a detailed way—especially those who want to move on the technology now, rather than in the next year or two.

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Web Service Contract Design and Versioning for SOA

Service-Oriented Architecture and Design Strategies

SOA Principles of Service Design (paperback)