

## <<SOA服务设计原则>>

### 图书基本信息

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### 内容概要

本书主要介绍了SOA基础和SOA设计原则，包括服务协议、服务耦合、服务抽象、服务可重用、服务自治、服务状态管理、服务发现、服务组合的设计原则和应用案例，最后对SOA和面向对象的设计方法进行了对比，在附录中给出SOA的服务交付、分析、服务建模、服务设计等参考流程。本书对业务工程进行了彻底的研究，引领读者学习了综合的、深入的、可视化的面向服务设计范例，精确地揭示了现实中的SOA服务应该如何设计。

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## 章节摘录

版权页: Learning from one's mistakes is one of the most essential principles of life. As the old saying goes, "One cannot achieve success without failure." When I hear that saying I sometimes mentally append it with "...unless one happens to be lucky." While there may be some truth to this, the fact is that luck is not something we want to ever have to depend on when building service-oriented architecture (SOA). Optimistic project plans or risk assessments qualified with "...as long as we get lucky" won't have much success instilling confidence (or receiving funding). A personal mantra of mine that has emerged from involvement in numerous SOA projects preaches that "the key to successfully doing something is in successfully understanding what you're doing." Again, disregarding the luck factor, this philosophy is very relevant to service-oriented computing and forms the basis and purpose of this book. The content provided in the upcoming chapters is intended to help you become a "true" SOA professional. By that I mean someone who has a clear vision of what it means for a software program to be "service-oriented," who can speak about service-oriented computing from a real-world perspective, and who approaches the design of services with a deep insight into the dynamics behind service-orientation. Furthermore, such an individual requires the ability to assess options in technology, design, development, delivery, and governance—all important success factors in SOA initiatives. What this translates into for the SOA professional is a need for an increased level of judgment. Judgment can be seen as a combination of common sense plus a sound knowledge of whatever is being judged. In the world of SOA projects, this points to two specific areas: a need to understand service-oriented computing with absolute clarity and a need to understand your own environments, constraints, and strategic goals just as well. With this range of knowledge, you can leverage what the service-oriented computing platform has to offer in order to fulfill your strategic goals within whatever boundaries you are required to operate. In theory this makes sense, but there is still something important missing from this formula. Nothing helps raise the level of one's judgment more than actual experience. There's no better way to truly appreciate the strategic potential of service-oriented computing and the spectrum of challenges that come with its adoption, than to personally go through the motions of a typical enterprise SOA project. This book can't replace real-world experience, but it strives to be the next best thing.

### 1.1 Objectives of this Book

The focus of this book is first and foremost on the design of services for SOA. There is a constant emphasis on how and where design principles can and should be applied with the ultimate goal of producing high quality services. Specifically, this book has the following objectives:

- . to clearly establish the criteria for solution logic to be classified as "service-oriented"
- . to provide complete coverage of the service-orientation design paradigm
- . to document specific design characteristics realized by the application of individual design principles
- . to describe how the application of each principle affects others
- . to explain the link between the design characteristics realized by service-orientation and the strategic goals associated with SOA and service-oriented computing
- . to establish the origins of service-orientation and identify how this paradigm differs from other design approaches

Essentially, this guide intends to provide practical, comprehensive, and in-depth coverage of the service-orientation design paradigm, which encompasses the official definition and detailed explanation of eight key principles, each of which is explored in a separate chapter.

### 1.2 Who this Book Is For

As a guide dedicated to service design, this book will be useful to IT professionals interested in or involved with technology architecture, systems analysis, and solution design. Specifically, this book will be helpful to developers, analysts, and architects who:

- . want to know how to design services for SOA so that they fully support the goals and benefits of service-oriented computing
- . want to understand the service-orientation design paradigm
- . want to learn about how SOA and service-orientation relate to and can be implemented through Web services
- . want in-depth guidance for designing different types of services
- . want an understanding of how services need to be designed in support of complex service aggregation and composition
- . want to learn about design considerations that apply not just to the entire service, but also to individual service capabilities
- . want to better comprehend how services can and should relate to each other
- . want deep insight into how service contracts should be shaped in support of service-orientation
- . want to know how to determine the appropriate levels of service, capability, data, and constraint granularity
- . want an awareness of how

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WSDL, XML schema, and WS-Policy definitions are best positioned within service designs . want to understand the origins of service-orientation and how specifically it differs from object-orientation . will be involved with creating design standards for SOA-based solutions

### 1.3 What this Book Does Not Cover

SOA and service-oriented computing represent broad subject matters. Many books can be written to explore various aspects of technology, architecture, analysis, and design. This book is focused solely on service engineering and the science of service design.

#### Topics Covered by Other Books

A primary objective of the Prentice Hall Service-Oriented Computing Series from Thomas Erl is to establish a library of complementary books dedicated to service-oriented computing. To accomplish this, an effort has been made to minimize overlap between this title and others in the series. For example, even though service design touches upon numerous architectural issues, it is important to acknowledge that this is a book about designing services for SOA, not about designing SOA itself. The companion title, *SOA: Design Patterns*, provides a catalog of patterns, many of which deal directly with architectural design.

### 1.3 What this Book Does Not Cover

Furthermore, this book is not a tutorial about Web services or SOA fundamentals. Several books have already covered this ground sufficiently. Although some chapters provide introductory coverage of service-oriented computing, they do not go into detail. A number of sections also assume some knowledge of WSDL, XML schema, and WS-Policy. Basic tutorials for these technologies and structured “how-to” content for SOA is provided in *Service-Oriented Architecture: Concepts, Technology, and Design*, another official companion guide also part of this book series. Finally, although this book includes a number of case study examples, it does not provide full code samples of implemented services or service contracts. The book *Web Service Contract Design for SOA* is wholly dedicated to the design of Web service contracts and provides both basic and advanced tutorials for WSDL, XML schema, WS-Policy, SOAP, and WS-Addressing. Additionally, several other series titles in development are dedicated to supplying comprehensive coverage of how to build services using different development platforms, such as .NET and Java.

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### 编辑推荐

《SOA服务设计原则(英文版)》对业务工程进行了彻底的研究，引领读者学习了综合的、深入的、可视化的面向服务设计范例，精确地揭示了现实中的SOA服务应该如何设计。  
可供SOA领域的软件架构师、高级软件工程师、分析师、应用科研人员等参考学习。



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