



# SOA: Principles of Service Design

By Thomas Erl

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“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.”

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—*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.”

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–*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.”

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–*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 provide s great context and practical examples. Part 1 of the book alone is worth getting the book for.”

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“A very clear discussion of the subject matter. Provides a good structure that facilitates understanding and readily highlights key points.”

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–*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.”

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“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*

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–David Michalowicz, *MITRE Corporation*

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–Cory Isaacson, *President, Rogue Wave Software* and Ravi Palepu, *SOA Author and Speaker*

“Thomas Erl does a great job...an easy read.”

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“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*.

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