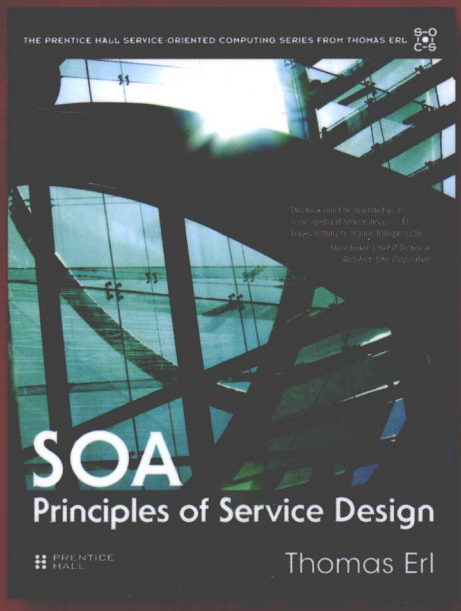
服务计算技术丛书

PEARSON

SOA服务设计原则

（英文版）

〔美〕Thomas Erl 著



SOA: Principles of Service Design

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内 容 简 介

成功使用面向服务架构（SOA）的关键在于理解其最基本的组成模块——服务的含义和重要性。本书首先简要介绍了 SOA 与服务计算的概念和特点，然后着重阐述了 8 个核心设计原则：标准化服务合约、服务松散耦合、服务抽象、服务可复用性、服务自治、服务无状态性、服务可发现性和服务可组合性，每个设计原则都附有详细的设计范例。全书结构清晰、深入浅出，而且附有与《SOA 设计模式》中关键设计模式之间的交叉参考。通过学习本书，读者能够学会如何设计现实中的 SOA。

本书可供 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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Preface

Over the past few years I've been exposed to many different IT environments as part of a wide range of SOA initiatives for clients in both private and public sectors. While doing some work on a project for a client in the defense industry, I had an opportunity to learn more about not just their technical landscape, but also the various policies and procedures that are specific to the defense culture. During this time I came across the DoD Standardization Program, an initiative comprised of documents and specifications that establish guiding principles and standards for various aspects of the military, including the design of weapons and military equipment, as well as the definition of methods and processes used by military personnel.

While reading about this program, I learned that several other standardization programs have been in existence for some time, facilitating standardization within public sector organizations (such as the Coast Guard and NASA), as well as numerous private sector industries. The goals of these programs tend to revolve around the establishment of industry standards to enhance interoperability with the ultimate objective of reducing operational overhead, reducing risk, and increasing the organization's overall effectiveness.

In the case of the aforementioned public sector-related standards, interoperability may refer to the exchange of equipment or weapons or the exchange and collaboration of personnel from different locations.

For example, an ammunition clip manufactured in Iowa, stored in Virginia, and delivered to and used by someone at a training base in Texas will work perfectly with a gun manufactured in Kansas because both of these products were built according to the same set of specifications. Similarly, in response to a natural disaster a rescue team may

need to be quickly assembled from individuals based out of different cities and who have never previously worked together. This team can still function effectively because all team members were trained as per the same procedures and processes, using the same vocabulary and conventions.

These standardization programs have much in common with the rationale and objectives behind SOA and service-orientation. The fundamental goal is to produce something with repeatable value, long-term benefit, and inherent flexibility, all for the strategic good of the organization. The greatest obstacle to achieving this goal in the world of SOA has been a lack of understanding as to what service-orientation, as an industry paradigm, really is. It is my hope that this book will help rectify this situation by providing some clarity for what it means for something to be "service-oriented."

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