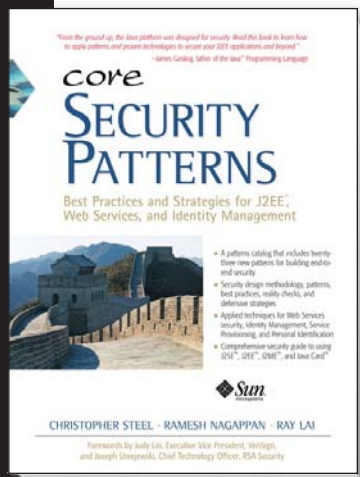


An in-depth treatment of J2EE security architectural patterns and practices
and how to apply them optimally to enterprise applications

Christopher Steel, Ramesh Nagappan, and Ray Lai



Core Security Patterns: Best Practices and Strategies for J2EE™, Web Services, and Identity Management

Core Security Patterns is the hands-on practitioners guide to building robust end-to-end security into J2EE™ enterprise applications, Web services, identity management, service provisioning, and personal identification solutions. Written by

three leading Java security architects, the patterns-driven approach fully reflects today's best practices for security in large-scale, industrial-strength applications.

The authors explain the fundamentals of Java application security from the ground up, then introduce a powerful, structured security methodology; a vendor-independent security framework; a detailed assessment checklist; and twenty-three proven security architectural patterns. They walk through several realistic scenarios, covering architecture and implementation and presenting detailed sample code. They demonstrate how to apply cryptographic techniques; obfuscate code; establish secure communication; secure J2ME™ applications; authenticate and authorize users; and fortify Web services, enabling single sign-on, effective identity management, and personal identification using Smart Cards and Biometrics.

Core Security Patterns covers all of the following, and more:

- What works and what doesn't: J2EE application-security best practices, and common pitfalls to avoid
- Implementing key Java platform security features in real-world applications
- Establishing Web Services security using XML Signature, XML Encryption, WS-Security, XKMS, and WS-I Basic security profile
- Designing identity management and service provisioning systems using SAML, Liberty, XACML, and SPML
- Designing secure personal identification solutions using Smart Cards and Biometrics
- Security design methodology, patterns, best practices, reality checks, defensive strategies, and evaluation checklists
- End-to-end security architecture case study: architecting, designing, and implementing an end-to-end security solution for large-scale applications

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"Java provides the application developer with essential security mechanisms and support in avoiding critical security bugs common in other languages. A language, however, can only go so far. The developer must understand the security requirements of the application and how to use the features Java provides in order to meet those requirements. Core Security Patterns addresses both aspects of security and will be a guide to developers everywhere in creating more secure applications."

—Whitfield Diffie,
inventor of
Public-Key Cryptography

"A comprehensive book on Security Patterns, which are critical for secure programming."

—Li Gong, former Chief Java
Security Architect, Sun
Microsystems, and coauthor of
Inside Java 2 Platform Security

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TABLE OF CONTENTS

Foreword by Judy Lin

Foreword by Joe Uniejewski

Preface

Acknowledgments

About the Authors

I. INTRODUCTION

1. Security by Default

2. Basics of Security

II. JAVA SECURITY ARCHITECTURE AND TECHNOLOGIES

3. The Java 2 Platform Security

4. Java Extensible Security Architecture and APIs

5. J2EE Security Architecture

III. WEB SERVICES SECURITY AND IDENTITY MANAGEMENT

6. Web Services Security – Standards and Technologies

7. Identity Management Standards and Technologies

IV. SECURITY DESIGN METHODOLOGY, PATTERNS, AND REALITY CHECKS

8. The Alchemy of Security Design – Methodology, Patterns, and Reality Checks

V. DESIGN STRATEGIES AND BEST PRACTICES

9. Securing the Web Tier – Design Strategies and Best Practices

10. Securing the Business Tier – Design Strategies and Best Practices

11. Securing Web Services – Design Strategies and Best Practices

12. Securing the Identity – Design Strategies and Best Practices

13. Secure Service Provisioning – Design Strategies and Best Practices

VI. PUTTING IT ALL TOGETHER

14. Building End-to-End Security Architecture – A Case Study

VII. PERSONAL IDENTIFICATION USING SMART CARDS AND BIOMETRICS

15. Secure Personal Identification Strategies Using Smart Cards and Biometrics

Index

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