

Contents

PREFACE	vi
CHAPTER 1	
Introduction to the SOA Business Model	1
Elements of an SOA	1
Conceptual SOA Vision	2
Services	2
Enabling Technology	3
SOA Governance and Policies	3
Metrics	4
Organizational and Behavioral Change	4
SOA: Behavior and Culture	4
New SOA Conceptual, Architectural, and Organizational Models	6
SOA: Its Time Has Come	6
SOA: Evolved Enterprise Integration	11
SOA Means “Service-Oriented Agility”	20
Service-Oriented Business: SOA = Business-Oriented Architecture	25
Characteristics of a Zero-Integration Enterprise	27
What Are the Challenges of SOA?	29
CHAPTER 2	
General Model for Services	33
SOA Is All About Services	33
Services Address Persistent Challenges and Present New Opportunities	44
General Model of Services	47
Services in an SOA Context	51
Service Lifecycle	53
Summary	62
CHAPTER 3	
SOA Business Modeling	64
SOA Business Iteration Model	65
SOA Business Modeling	71
Identify Major Business Challenges: Imperative Analysis	78
Focusing Your SOA Efforts	91
Summary	98



CHAPTER 4	
Services Identification, Analysis, and Design	99
Begin with Candidate Business Services	103
Business Process Analysis	104
Core Entity Analysis	104
Opportunistic Approach via Already-Budged Projects	105
Business and Domain Expertise	106
Preexisting Services	106
Existing Business Applications	107
Top-Down or Bottom-Up? Both, Then Iterate	107
Focus on Candidate Business Services	107
Service Analysis and Design	108
Candidate Service Analysis	109
Service Design	123
Bottom-Up Design and Analysis Approach	147
Summary	149
CHAPTER 5	
SOA Technology and Services Integration Model	150
Service Integration Model Framework	152
Service Integration Generic Notation	153
Service Integration Principles	153
Service Integration Design	169
Service Integration Modeling	177
Service Product Mapping Component: Integration Product Mapping Strategy	202
Summary	206
CHAPTER 6	
Fundamentals of SOA Asset Reuse: Service Reusability Model	207
Major Influences on Service Reusability	209
Service Reuse Model	210
Service Reusability Strategy	211
Service Construction	217
Service Integration	226
Service Management	234
Summary	242
CHAPTER 7	
SOA Governance, Organization, and Behavior	243
Architecture's Role in an SOA	245
Dynamic Architecture versus Static Architecture	246
SOA: Spatial and Temporal Challenges	247

SOA Governance Overview	248
Organization of Governance	250
What Does SOA Governance Do?	252
SOA Governance Organizational Model	253
SOA Governance Processes	256
Closed Loop SOA Governance	256
What Is the SOA Governance Process?	260
SOA Policies: Where SOA Governance Gets Real	262
SOA Governance Implementation and Integration	266
Enabling Technology of SOA Governance	268
SOA Behavioral Model: Beyond SOA Governance	276
Summary	283

CHAPTER 8

Architecture Organization Model	284
When Should Enterprise Architecture Be Reviewed?	285
Key Questions	285
SOA-Driven Enterprise Architecture Model	287
Business Requirements	289
Technological Requirements	291
Architecture Disciplines	298
Architecture Practices	302
Architecture Roles	305
Architecture Role Models	308
Positioning of Architecture Organizations: An SOA Perspective	310
Architecture Organizational Management Structure	315
Summary	320

CHAPTER 9

SOA Business Case and Return on Investment Model	322
Achieving SOA Value	323
SOA Value Considerations	324
SOA Value Points	325
Big Hairy Audacious Value	325
SOA Process	327
Process Approach to SOA ROI	327
Exploring the SOA Value Model	329
SOA ROI Threshold Model	332
Targeting ROI with SOA Initiatives	342
SOA and Services Reuse	346
SOA Metrics and SOA Scorecards	354
Summary	358