

Contents

List of Figures	xv
List of Tables	xvii
Foreword	xix
Preface	xxi
PART I. Building Your SOA	1
Chapter 1: The SOA Challenge	3
The Concept of Total Architecture	4
Systems Are More Than Services	5
Services Involve More Than Business Functionality	5
Growing Pressures	6
Framing the Challenges	9
Staying on Track	13
How to Use This Book	16
Chapter 2: Business Process Pitfalls	19
Process Breakdowns Go Undetected	20
Service-Level Agreements Are Not Met	21
Process Changes Do Not Produce Expected Benefits	25
Summary	27
Key Business Process Questions	28
Suggested Reading	28
Chapter 3: Business Systems Pitfalls	29
Where's the Beef? Projects That Don't Deliver Tangible Benefits	30

Systems Won't Perform in Production	32
Summary	34
Key Systems Design Questions	35
Chapter 4: SOA: More Than Services	37
What Is a Service?	37
Business and Infrastructure Services	39
Most Service Functionality Already Exists	40
Creating Effective Services	41
Functional Stability	42
Event Support	44
Universal Accessibility	45
Flexibility in Implementation Technology	46
Location Transparency	47
Independent Access Control	52
Standardized Message Content and Structure	53
Where Do Services Make Sense?	55
The Economic Realities of Services	58
Summary	59
Key SOA Questions	60
Suggested Reading	61
Chapter 5: Keys to SOA Success	63
What Makes a Project Good?	63
The Role of Cost and Schedule Budgets	65
The Project Prime Objective	66
The Good Project	67
The System Is the Process!	68
System Design and Process Design Are Inseparable	69
Toward a Refined Development Methodology	70
Summary	73
Key Development Process Questions	73
Suggested Reading	74

Chapter 6: Organizing for SOA Success	75
The Organizational Simplicity of Application Design	76
The Organizational Complexity of Distributed System Design	78
Organizing Multisilo Projects	80
Aligning Priorities	82
The Business Executive Sponsor–IT Executive Sponsor Relationship	84
The Role of Incentives in Aligning Priorities	85
Systems Architecture Leadership	86
Project Oversight	88
The Enterprise Projects Organization	89
Oversight Team Responsibilities	90
Political Realities	94
Oversight Team Summary	95
Organizational Variations for Project Oversight	95
Project Teams Report to IT	96
The Split Team	97
Summary	97
Key Organizational Questions	98
Suggested Reading	98
Chapter 7: SOA Project Leadership	99
The Project Manager	99
The Business Process Architect	101
The Systems Architect	102
Project Leadership Team Responsibilities	103
Defining the Solution	104
Determining Project Feasibility	105
Making the Changes	106
Delivering the Benefits	107
Organizational Variations for Project Leadership	108
The IT-Centric Project	108
The Virtual Leadership Team	109

Summary	109
Key Project Leadership Questions	110
Chapter 8: SOA Enterprise Leadership	111
The Elements of Enterprise Architecture	111
Enterprise Architecture Definition	115
Enterprise Architecture Governance	119
Enterprise Architecture Standards and Best Practices	122
Enterprise Architecture Operation	123
Total Architecture Management	124
Summary	128
Key Organizational Questions	129
Chapter 9: Agile SOA Development	131
The Challenge	132
The Solution: Total Architecture Synthesis	134
Project Scoping	136
Requirements Gathering	137
Business Process Synthesis	138
Systems Architecture Synthesis	139
Evaluation	139
Beware of Look-Alike Processes!	140
Manage Risk: Architect as You Go	141
Summary	142
Key Project Lifecycle Questions	142
Suggested Reading	143
PART II. Managing Risk	145
Chapter 10: Responsibility and Risk in Business Processes	147
Systems Can't Take Responsibility	147
The Conversation for Action	149
Delegation and Trust	153
Detecting Breakdowns in Task Performance	154
Awaiting the Promise	156
Awaiting the Result	158

Evaluating the Request	159
Awaiting the Feedback	159
Systems as Participants	159
Dialog Shortcuts Increase Risk	160
Omitting the Promise	161
Omitting the Feedback	162
Omitting the Results	166
Request-Only Interactions	168
Process Design and Responsibility Assignments	170
Designing the Basic Process Flow	171
Establishing Task Performance Constraints	172
Task Execution (Performer) and Management (Requestor) Assignments	173
Process Monitoring and Management	176
Validating Results	178
The Business Executive Sponsor Bears All Risks	178
Summary	179
Key Process Design Questions	181
Suggested Reading	181
Chapter 11: Managing Project Risk	183
The Project as a Dialog	184
The Project Charter	186
The Request	186
Key Participants	190
Project Governance	191
The Project Exit Strategy	194
Considerations in Structuring Projects	194
Phased Projects and Services Development	194
Partitioned Projects	195
Cosmic Chicken	196
Summary	197
Key Project Risk Management Questions	198
Suggested Reading	198

Chapter 12: Investing Wisely in Risk Reduction	199
The Risk of Failure	200
Loss of Resources	202
Loss of Data	204
Logic Failure	205
Multiple Failure Modes	207
The Risk of Error	208
The Risk of Delay	210
Summary	211
Key Business Process Risk Reduction Questions	212
Chapter 13: Managing SOA Risks	215
Service-Related Risks	215
SOA Processes and Governance	217
Governance for Project Portfolio Planning	218
Governance for Service Design	219
Service Justification and Specification	220
Service Architecture, Implementation, and Deployment	221
Service Documentation	223
Governance for Service Utilization	224
Governance for Service Operation	225
Summary	226
Key SOA Risk Reduction Questions	227
Afterword	229
Index	237