# SOA Service Design Cheat Sheet
## from SOAGrowers.com
### We turn SOA aspirations into SOA success stories.

## Service-Oriented Architecture (SOA)
soaglossary.com

"A distributed technology architectural model that adheres to the principals of service orientation"

## Service-orientation
soaglossary.com

"A technology agnostic design paradigm used to create solution logic that can be collectively and repeatedly reused in order to realise the strategic Goals & Benefits associated with SOA and Service-oriented computing"
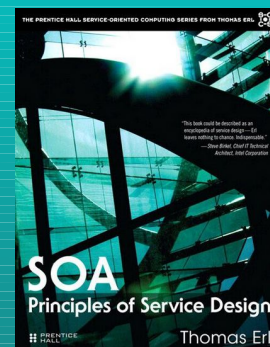
## SOA's Strategic Goals and Benefits
Reduced IT Burden (the ultimate goal for SOA)
Increased Return On Investment (ROI)
Increased Business Agility
Increased Business & Technology Alignment
Increased Vendor Diversification (Options)
Increased Intrinsic Interoperability
Increased Federation

## The Principals of Service Design
soaprinciples.com
1. Standardised Service Contract (Chapter 6)
2. Service Loose Coupling (Chapter 7)
3. Service Abstraction (Chapter 8)
4. Service Reusability (Chapter 9)
5. Service Autonomy (Chapter 10)
6. Service Statelessness (Chapter 11)
7. Service Discoverability (Chapter 12)
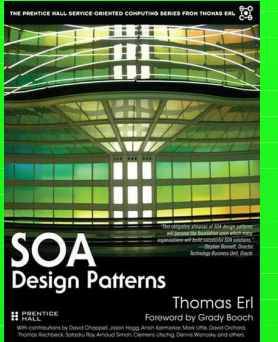8. Service Composability (Chapter 13)

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## SOA Characteristics
• Composition Centric
• Vendor Neutral
• Enterprise Centric
• Business Driven

## Contract First Service Design
The process of ensuring code-to-contract & client-to-contract coupling and better data interoperability by planning service contracts (ops, data, policy, etc.). Prevents negative contract-to-code coupling. See principals 1/2 & patterns 401/200/207/409.

## Core SOA Design Patterns
soapatterns.org

ISBN: 978-0136135166

**Inventory Patterns**
Domain Inventory (p123)
Logic Centralisation (p136)
Schema Centralisation (p200)
Service Normalisation (p131)

**Service Patterns**
Decoupled Contract (p401)
Contract Centralisation (p409)
Official Endpoint (p711)
Service Façade (p333)
Concurrent Contracts (p421)
Redundant Implementation (p345)
Service Data Replication (p350)
Legacy Wrapper (p441)

**Composition Patterns**
Messaging Metadata (p538)
Service Agent (p543)

**ESB Patterns**
Service Broker (p707)
Data Model Transformation (p671)
Data Format Transformation (p681)
Protocol Bridging (p687)
Intermediate Routing (p549)
Asynchronous Queueing (p582)
Reliable Messaging (p592)
Policy Centralisation (p207)
Rules Centralisation (p216)
Event Driven Messaging (p599)

**Orchestration Patterns**
Process Abstraction (p182)
Process Centralisation (p193)
Compensating Service Transaction (p631)
State Repository (p242)
Atomic Service Transaction (p623)
Rules Centralisation (p216)
Data Model Transformation (p671)

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