

# Service Orchestration Patterns: Graduating from State of the Practice to State of the Art

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## State of the Art:

- Better alignment with the business
- Improved flexibility
- Increased ability to specialize
- Lower total cost of ownership
- Improved manageability

## State of the Practice:

- Must use SOA somehow
- SOA is Web Services:
  - Distributed system technology
  - The ultimate API
- Replace EAI with SOA

## Motivation

SOA brings business processes at the focal point of enterprise design. In this architectural style *Orchestration* (which abstracts the parts built for change) provides the means for weaving *Services* (the parts built to last) into business processes. SOA adopters fixated on technology rush into defining services without understanding how these abstractions marry the technology with the business, This yields ill-defined services and neglects Orchestration, thus leaving the promises of SOA unfulfilled.

## Objectives

- This work aims at taking designers beyond service implementation, to designing and building the process-driven enterprise through fully leveraging SOA and Orchestration. The target audience includes:
- People who adopted SOA and are interested in fully leveraging it
  - People who are assessing whether SOA is a path they should follow

## Method

We employ *software patterns* to explain both SOA and Orchestration. The patterns distill expert knowledge to provide a means for framing problems, articulate the forces at play, make the tradeoffs explicit.

## Why the Pattern Form

- Context: Background information about the pattern
- Problem: Statement framing the objectives of the pattern
- Forces: Considerations that the pattern must take into account
- Solution: Description of the problem resolution and how it balances the forces
- Tradeoffs: Considerations to take into account prior to applying the pattern
- Known Uses: Several descriptions of how others used the solution

## Benefits:

- Graduate from Orchestration and SOA state of the practice to state of the art
- Understand Orchestration and its role in the context of SOA
- Improve design skills
- Learn from experts
- Establish a shared vocabulary
- Make informed decisions when evaluating tools

## Pattern Map

