The Enterprise SOA Implementation Lifecycle Explained

Applies to:
Enterprise Architects, Business Process Experts

Summary
Enterprise SOA implementation has been mysterious to many. It can be demystified using the Enterprise SOA Implementation Lifecycle approach, which this article explains in detail.

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Author Bio
Sanjeev Kumar is an enterprise SOA Evangelist at HCL Technologies Ltd. He and his team have championed the enterprise SOA cause at various industry forums. Sanjeev focuses on Business Model Innovation enabled by enterprise SOA.
What is Enterprise SOA?

Enterprise SOA is a business operations strategy for leveraging information to meet the organization’s objectives, such as increasing overall revenue, boosting customer satisfaction, improving product quality, and enhancing operational agility.

In practice, enterprise SOA means different things to different people.

To an IT Architect, it means the overall enterprise architecture definition and the process that enables IT to develop and deploy business capability rapidly. To the LOB-IT liaisons it means the governance, organization, and process for project/program management—and the various business building blocks that could potentially be reused in order to reduce cost. For the CIO, enterprise SOA is the IT strategy for delivering business capability. What business functions will be automated: which services, and what maturity, cost, and SLA to expect?

Enterprise SOA Lifecycle Stages

The enterprise SOA lifecycle covers the stages of implementing enterprise SOA within the enterprise or LOB. It is separate from the service lifecycle, which is the process for managing individual services. The enterprise SOA lifecycle has three stages: Initiate, Develop Roadmap, and Execute Plan. Each is explained in more detail below.
Step 1: Initiate Enterprise SOA

In the first step of the lifecycle, IT and business must decide which business functions and underlying processes will be enabled, enhanced, or replaced by enterprise SOA. This often takes the form of IT “pitching” a project to a business stakeholder, presenting the business and/or technical events that the proposed SOA-based strategy will address, and what benefits this new approach will deliver.

During this phase, the company establishes a project team, objectives, timelines, and deliverables. The objective is to create a roadmap that combines business and IT efforts, and that will be approved by an IT Board of Directors.

Project Milestones

The following figure is an example of a high-level project for the Initiate step. In this example, the proposed project is expected to last 11 weeks—each organization should modify the timeline according to their needs. The relative effort and the tasks would potentially be the same.
Best Practices for Initiating Enterprise SOA

- Create an actionable roadmap, one that both business and IT leadership are committed to.
- Have the Enterprise Architecture team lead the effort.
- Pull together a project team including all key personnel from business, IT leadership, LOB-IT, operations, and partners such as systems integrators and ISVs.
- Document clear business objectives, plans, and financial information.
- Secure a balanced and unbiased opinion from a system integrator to identify the business benefits and develop the ROI.
- Leverage resources from ISVs, including product roadmaps and best practices.
- Set a reasonable timeframe for the project, typically between 8 and 24 weeks.

Project Team

CIOs frequently sponsor enterprise SOA initiatives with an IT Board of Directors as the steering committee.

The following business personnel should be included in the project team:

- **Business Team Members**
  - Vice President, IT/Business Strategy
  - Vice President, Business Operations
  - Representatives from each business operations team.

Their responsibilities include identifying, defining, and prioritizing business processes and benefits.

The following IT personnel should also be included in the project team:

- **IT Team Members**
  - Vice President, IT Application Development
  - VP, PMO
o VP, Technology/Architecture
o Divisional CIO/LOB-IT head.

Their responsibilities are to translate business strategy to IT strategy, develop an IT execution plan aligned to business priorities, develop reference architecture, identify architecture components, and estimate cost.

Project Objectives
- Define how IT should align to the business
- Develop an execution plan for achieving the vision
- Create governance and organization model to execute the vision
- Estimate expected business benefits (ROI) for the investment

Project Deliverables
- Statement of enterprise SOA principles, as they relate to the business, application, technology, and data.
- Inventory of current situation, including business applications, owners within business and IT, functionality, support contacts, technology providers, data flows, and skills of current staff.
- Recommended target state consisting of the reference architecture, gap analysis, roadmap, and technology required.
- Execution plan consisting of application portfolio, implementation sequence based on business priorities, and mapping of infrastructure needs to provide business capability.

Step 2: Develop a Roadmap

The steering team from the Initiate step needs to create a roadmap, which spells out the process for conducting an enterprise SOA assessment for the organization, developing the enterprise SOA principles,
defining the reference architecture (future state), and making the transition from the current situation to the future state.

The three key deliverables for this stage of enterprise SOA are:

- **Develop enterprise SOA principles**: define the enterprise SOA principles in a clear and concise manner.
- **Enterprise SOA reference architecture**: describe the “future state” for the IT organization. The enterprise SOA reference architecture maps out the technology “end-state” and as part of this stage, the team needs to define the business “end-state”. This will help develop the enterprise SOA roadmap for the enterprise or LOB.
- **Enterprise SOA roadmap**: the roadmap should clearly define the phases for deploying business solutions and the infrastructure required to support them. It should also identify opportunities for quick wins to validate the benefits of enterprise SOA.

**Step 3: Enterprise SOA Execution Plan**

The execution plan describes how to act on the enterprise SOA roadmap. Execution has two tracks:

- **Projects**: In this track, teams execute projects in the sequence described in the roadmap and build out the infrastructure as required to provide the necessary business capability
- **Governance and organization**: Teams implement this track in parallel to enable efficient project execution based on enterprise SOA.

Teams need to review the enterprise SOA execution plan on a regular basis and update the roadmap whenever there is major change to the plan.

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