Chapter 9
Governing the Service-Driven Environment: Tools and Techniques

Leo Shuster
Nationwide Insurance, USA

ABSTRACT

The purpose of this chapter is to discuss tools, technologies, and practices employed to govern the service lifecycle in a Service-driven environment. Aside from defining the complete service lifecycle, the discussion will concentrate on specific approaches to governing each stage in the lifecycle and best practices associated with it. SOA governance methodology will be covered in great detail. The topics discussed will include SOA Governance program structure, methodology, processes, funding, value demonstration, and adoption levers. These governance mechanisms will be aligned with each stage in the service lifecycle, and appropriate applications will be identified accordingly. Current and future state of governance tools and technologies will be explored. Some examples of existing tools will be provided to highlight and support the assertions made throughout the chapter. Connection between stages in the service lifecycle and the governance tools and technologies will be identified and best practices explored.

INTRODUCTION

Imagine driving down an unpaved road at 60 miles per hour without road signs, traffic lights, markers, or guardrails to help you determine where you are going. How quickly would you end up in a ditch? That depends on many things – how good your driving skills are, how tough is the road, how well lit it is, etc. However, it is plainly evident that avoiding a ditch is virtually impossible in this situation.

The example highlights an important reality. No project or program that embarks on a journey through an unchartered territory can survive without a roadmap and a paved road with clearly marked signs, exits, and guardrails. This is especially significant for a program utilizing Service-driven architectural approaches. It can easily disintegrate without a well defined governance mechanism. SOA (Service Oriented Architecture) Governance is as necessary for the Service-driven approach to survive as the air is for people. Without it, any
Service-driven initiative will quickly become “Just a Bunch of Services,” a collection of loosely organized, unmanaged, and unaccounted services, scattered throughout the enterprise.

**SOA Governance**

In simplest terms, *SOA Governance* is a mechanism for controlling and directing outcomes of a Service-driven program. It is the guardrails on the SOA highway, without which the SOA program would end up in a ditch. While SOA defines how services are built, SOA Governance specifies the rules by which it happens.

Brown et al. (2008) defined governance as “the need for a process or set of processes to ensure that where appropriate the laws, policies, standards, and procedures are being adhered to. It also should appropriately distribute the rights and responsibilities under which an organization makes decisions and operates.” This definition can be applied to SOA Governance as well, considering that the target to which the rules are applied against is the SOA program.

The primary responsibility of SOA Governance is to ensure success of the SOA program. The goal of SOA is to increase business agility through loose coupling of applications and reuse of shared services. SOA Governance helps achieve these goals by enforcing standards, laying out guidelines, ensuring compliance, and driving correct behaviors. Most importantly, SOA Governance helps institutionalize SOA across the organization and creates a system of checks and balances to maximize the success of the SOA program.

The success of the SOA program is measured through a series of metrics defined to capture what is most important for the organization. One of the key outcomes of SOA Governance is the organization’s ability to measure the value of the SOA program. With this comes the ability to improve those areas that are not performing well based on the collected metrics. Overall, SOA Governance forces the organization to accelerate its maturity and effectiveness through a continuous cycle of evaluation and improvement.

SOA Governance cannot exist by itself. It is a part of a larger IT governance structure that controls every aspect of IT systems design, build, and implementation. SOA Governance covers the planning, design, development, and the operational aspects of Service-driven systems. It must rely on IT governance to provide guidance on tasks that fall outside its domain.

SOA is a subset of Enterprise Architecture. Enterprise Architecture is the overarching architecture strategy that the company employs to align business and IT strategies. It governs all of the aspects of business and IT architecture. Since SOA is one of the key business agility enablers, it falls in the Enterprise Architecture domain. By extension, SOA Governance falls under the purview of Enterprise Architecture precepts, rules, and guidelines. While SOA Governance defines rules that are more detailed and specific than those of Enterprise Architecture, they must still comply with the high level guidelines and the spirit of Enterprise Architecture principles.

SOA Governance can also intersect with business governance. Since SOA promises significant business agility, business is deeply involved in business process modeling, service identification, reuse opportunity identification, portfolio management, and funding decisions. Thus, SOA governance becomes a business imperative. Business stakeholders need to be involved in the SOA governance processes as much as IT and Enterprise Architecture.

An SOA Governance program is the formalized practice of executing SOA Governance activities. It typically consists of several key elements.

- **People**: Roles and responsibilities related to SOA Governance activities.
- **Processes**: SOA Governance processes that need to be executed.
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