SOA: Keys to Sustaining the Transformation to a Service Oriented Architecture

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White Paper
Executive Summary

SOA is the cornerstone for all modernization initiatives within an enterprise in virtually every geography and vertical sector. Great benefits and sharp competitive edge can be achieved using a SOA approach, but how do you make it work? What must be done to not only gain but also sustain the multifold benefits offered by a SOA approach? How can you achieve a transformation to a SOA approach without disrupting your current working systems? How do you ensure that your modernization using a SOA approach is successful and implemented smoothly? This paper provides an overview of the key elements to bear in mind while undertaking an SOA transformation project.
What you need

Today, it’s nearly impossible to look into information technology without bumping into service-oriented architecture, or SOA. SOA is an IT strategy for delivering business capability. SOA can help you achieve business agility, bringing business and government the possibility of creating an information sharing environment that can:

- Evolve existing disparate, unconnected, stove-piped applications and processes into re-usable services, creating an environment where services can be rapidly assembled, creating new applications to support changing requirements.
- Increase the speed at which information and services can be securely shared so others can benefit, including unanticipated users.
- Securely interconnect people and systems, independent of time, location, and organizational boundaries improving situational awareness, and significantly shorten decision-making cycles.

What is SOA?

OASIS (the Organization for the Advancement of Structured Information Standards) defines SOA as the following:

A paradigm for organizing and utilizing distributed capabilities that may be under the control of different ownership domains. It provides a uniform means to offer, discover, interact with and use capabilities to produce desired effects consistent with measurable preconditions and expectations.

Web services, popular today, is one of many technologies that helps organizations realize the promise of reusability and interoperability if implemented within the constructs of SOA, but in itself is not SOA.

Sound Easy? Think Again!

Service oriented architectures can be implemented enterprise-wide, at a departmental level or even within a single application suite. An enterprise-wide SOA initiative can achieve closer alignment of business and IT throughout the application lifecycle, providing benefits well beyond pure technology. If properly orchestrated, enterprise-wide SOA initiatives can bring formality to processes, enhance communication between departments and organizations, and give all stakeholders an increased awareness of each other’s projects and initiatives.

But enterprise-wide SOA initiatives are not easy and typically require both a business and IT transformation. Transformation from traditional governance and organization models to an enterprise approach that enables greater agility. This enterprise approach affects business and IT stakeholders causing them to look outside their immediate areas of responsibility and partner across the enterprise to define the strategy and roadmap to achieve their objectives.

Three elements need to be in place for an enterprise-wide SOA to be successful.

1. A prioritization process for requirements that emphasizes enterprise priorities in lieu of departmental priorities
2. A highly transparent, participative governance process comprising all stakeholders
3. An unbounded commitment of an executive sponsor to steadfastly support this organizational transformation.

Setting Priorities

When implementing an enterprise-wide SOA initiative, business and IT alignment occurs in the course of requirements prioritization and budgeting. Requirements for services in an enterprise-wide SOA initiative are determined and funded according to the priorities of the enterprise as a whole, rather than those of departments. This forces alignment of business with IT ensuring the goals of SOA are aligned with organizational objectives.

Achieving concurrence on enterprise-wide SOA priorities requires participatory governance and communication processes, especially greater interaction with the business lines. Active participation from the business lines and IT, with possible input from an IT services vendor is essential. When this happens, information, requirements, and ideas flow more freely. This promotes greater awareness of everyone’s projects and initiatives to fully realize the benefits of an enterprise-wide SOA initiative.

Balancing prioritization and budgeting of between IT and business requirements for SOA ensures a long-term outcome of an IT environment equipped with sufficient capability to deliver on business requirements. It becomes easy to overlook the needs for a sound IT infrastructure because of the clear value new end user capability delivers. To avoid this, the Enterprise Architecture (EA) function needs to work closely with both IT and the business lines.
Since enterprise-wide SOA initiatives are broad and often span multiple business lines, the EA function must forge relationships with the business lines to ensure that new services align with the business strategy. It is essential for the EA function to incorporate business process groups and business lines. Including the business lines promotes more interactive relationships between the business lines, IT and the IT services vendor. The EA function has the responsibility and opportunity to communicate the business value of a comprehensively designed and delivered shared services approach.

**Governance**

Formal, transparent and precise application lifecycle processes lay the foundation for a successful enterprise-wide SOA initiative. Sound governance begins with a strategic plan that includes the business goals. These goals, in turn, can be transformed into IT requirements with clear line of sight from business goal to IT requirements, followed by high-level design specifications through testing, deployment maintenance, and application end of life.

The IT organization typically manages the processes in an enterprise-wide SOA initiative, including requirements definition and prioritization with the business lines. Typically, representatives from each stakeholder organization participate in the requirements definition and prioritization process. An IT services vendor should be a managed partner within these processes.

To ensure uninterrupted support of an enterprise-wide SOA initiative, a virtual team convenes as necessary to discuss issues and gain consensus on strategies to eliminate the issues. This virtual team is led by a project director and is composed of representatives from each stakeholder entity. The IT services vendor may need to participate in these meetings, depending on their organizational role. The project director collaborates with this team to understand issues such as barriers to participation, significant process breakdowns, and works with the team to gain consensus on mitigation strategies, plans, and new enterprise-wide processes. The project director is typically responsible for ensuring that barriers and gaps are identified and remedied in a timely manner.

Empowering this virtual team to develop and implement policy, process and standards is critical. During the early phases of an enterprise-wide SOA initiative, the team will need to meet more frequently. These meetings are essential and independent of the deployed application lifecycle methodology. For instance, imagine the issues that come up when a catastrophic problem occurs with a service consumed by one or more mission-critical business processes. What if it is a cross-business line process? Who do you notify first? What is the process for notifying stakeholders in a timely manner? Who else has to be notified and how quickly? Is this process repeatable by participants in the enterprise-wide SOA initiative? This is just one example of the kinds of issues this team of stakeholders will discuss and solve.

**Executive Commitment**

Unbounded executive commitment (AKA executive sponsorship) to the creation of an enterprise-wide SOA is a vital ingredient if an organization intends to transform itself from traditional governance and organization models to an enterprise approach that enables greater agility.

A key responsibility of the executive sponsor (or their delegate) is to be the final decision making authority when the participative governance process reaches a stalemate during a task. The stalemate may occur during requirements prioritization, or there could be a disagreement on the timing for delivering new capability to customers. It is the executive sponsor’s responsibility to arbitrate when impasses occur.

Executive commitment must be introduced well ahead of project kickoff, followed closely by establishing formal, precise, and transparent processes to manage the application lifecycle across the enterprise. Creating strong, transparent processes will make not only a strong SOA initiative, but a stronger and more effective organization on a larger scale.

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