Using SOA to Streamline Your Application Portfolio

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Today’s ever-changing business landscape demands flexibility and agility not only from business processes, but also from the IT systems that automate those business processes. Companies rely on their application portfolio to run their business. CIOs face the challenge of ensuring that technology is a valuable enabler of business innovation.

Many companies find that their application portfolio is an obstacle to implementing new business initiatives because applications within the portfolio do not easily integrate and are costly to maintain. Service Oriented Architecture (SOA) accommodates changing business processes so you can streamline your application portfolio and introduce the flexibility needed to keep up with the pace of the business.
Business Challenges

Companies face increasing challenges in supporting key applications that are based on diverse and disparate technologies with declining support from the technology vendors, ever-shrinking budgets, and increased pressures to cut costs across the IT service spectrum.

Supporting end-of-life technologies in the application portfolio forces you to keep resources dedicated to technologies that have reached their vendor-support horizon. In turn, this forces the technology expertise deeper into the organization and results in application silos and stunting employee growth.

This situation—coupled with the need to continuously innovate, support new business initiatives, and stay ahead of the technology curve—puts pressure on CIOs to properly deliver satisfactory end-user experiences within automated business processes.

As a result, opportunities are created to rationalize an organization’s application challenges, ease integration, and be more responsive to the changing needs of the business, while reducing overall application maintenance costs by leveraging Service Oriented Architectures.

SOA: The Value to Your Organization

Ask ten different people in the IT industry how it’s changing, and you’ll hear ten different answers. Factors like new security requirements, mergers and acquisitions, electronic integration requirements, and emerging technologies such as radio frequency identification (RFID) make it difficult and expensive to stay ahead of the game. From an IT perspective, simplifying and streamlining the exchange of information allows your organization to become more agile, more available to your customers, and better able to respond to change.

Specifically designed for flexibility and reuse, an SOA enables you to easily integrate systems, data, applications, and processes through linking services. An SOA enables uncomplicated connectivity by abstracting dependencies away from each application into a Web service. Applications can then easily be connected through modular components. Each application can be modified whenever necessary to support flexible and dynamic business processes through platform-independent, standardized interfaces.

SOA allows your team to create powerful applications and systems that retain enough flexibility for you to add or remove services when the need arises, without taking offline other features of the application. Building applications based on SOA allows you to easily upgrade, version, and replace component services when your application and business needs evolve. Forrester Research has estimated that an SOA approach can reduce application maintenance by 30 percent or more.1

More Than SOA

Portfolio Transformation is one path toward SOA. Portfolio Transformation provides the opportunity to rationalize a set of existing applications (streamline, combine multiple applications, add new functionality) into a set of modern, connected applications. Applications designed around the SOA principles offer immediate gains in terms of reuse, integration, and scalability. This allows IT teams to do more with less, a plateau that was dreamt of but not achievable with previous technologies.

As a means to get to SOA, Portfolio Transformation offers benefits that go beyond implementing SOA. The opportunity to address the changing nature of your business, whether driven by the need to enable an effective supply chain, going through a merger or acquisition, or making a strategic move away from old, end-of-life technologies, makes Portfolio Transformation a very attractive option. Renewing your application portfolio to take advantage of modern, scalable architectures (such as SOA) and efficient technologies (such as .NET) delivers cost savings and properly positions your organization for inevitable change.

Avanade’s Differentiators

Avanade’s Migrate and Manage solutions use proven process, tools, and skilled professionals to quickly and effectively migrate key applications to a long-term, tested, and easily supported .NET SOA.

Our in-depth knowledge of .NET SOA, legacy technologies, leading-edge estimating, assessment tools and process, and industry-tested conversion utilities enable us to leverage the newest technology advances to improve performance, open up integration opportunities, and reduce typical support costs by 30 percent or more. Avanade’s ACA family of assets increase developer productivity and ensure best practices are followed when building SOA applications. The SOA Factory asset gives architects the ability to define services and generate “plumbing” code that handles Web service messaging and non-functional requirements such as security, logging, and exception handling. This level of industrialization leads to fewer bugs and allows developers to focus on coding custom business logic.

By engaging Avanade to manage the applications after the migration, the customer eliminates cost, risk and effort for recruiting, training, and managing an internal support organization. This commitment also allows us to fully utilize our Global Delivery Network to provide the most cost-effective solution and resources for our customer.

Avanade can provide additional value by assuming application management responsibility for the existing applications, then manage the migration effort and continue to support the newly migrated applications under a multi-year arrangement. In most cases, we expect that the projected cost savings in application maintenance can “fund” the migration effort—which means our customer reaps the benefits of the new application environment with no additional out-of-pocket costs.

**Achieving Success**

Effectively rationalizing an application portfolio and transforming it with an SOA presents several challenges.

- **Managing services metadata.** This is a common challenge. SOA-based environments can include many services that exchange messages to perform tasks. Depending on the design, a single application may generate millions of messages. Managing and providing information on how services interact is a complicated task. This challenge can be mitigated by a close working relationship between the systems integrator and the customer’s system owners.

- **Providing appropriate security.** Another challenge is to provide appropriate levels of security. The security model built into an application may no longer be appropriate when the capabilities of the application are exposed as services that can be used by other applications. Rationalizing your organization’s systems to make use of an SOA requires an intensive audit of your application security systems.

- **Shortage of skilled people.** As SOA and the Web services specifications are expanded, updated and refined, there is a shortage of skilled people to work on SOA-based systems, including the integration of services and construction of services infrastructure. You need to consider where to find and how to retain skilled resources to renew and maintain the new SOA.

- **High expectations.** Vendor hype about SOA can create expectations that may not be fulfilled. Product stacks are still evolving as early adopters test the development and runtime products with real world problems. SOA does not guarantee reduced IT costs, improved systems agility, or faster time to market. Rather, successful SOA implementations realize some or all of these benefits depending on the quality and relevance of the system architecture and design. An in-depth analysis of the current systems and how they might benefit from an SOA is required to understand its value.

A successful SOA implementation requires, in many cases, a cultural shift that must occur to get the organization on track, both technically and from a process perspective. The proper approach to a move toward SOA must consider the need for properly trained technologists, proven tools and assets built on the appropriate technologies, and a process that will guide your organization through the changes needed to realize the benefits of an SOA.

Avanade helps organizations achieve success by providing a combination of:

- **Highly skilled Microsoft technologists.** Avanade is second only to Microsoft in the number of Certified Microsoft Architects (MCA) on staff. As a joint venture between Microsoft and Accenture, Avanade was formed to have unparalleled depth and breadth in
technology services while maintaining an industry-leading understanding of how to deliver solutions.

- **Industry proven assets and tools.** Since our inception, Avanade has focused on providing value through reusable frameworks and tools. Our ACA.NET framework, for example, is in use at thousands of Fortune 1000 companies around the world and was recently adopted by Microsoft as the foundation for Microsoft's Enterprise Library. Other tools and assets specifically address the need for secure SOA architectures and accelerated SOA development.

- **Repeatable methodology.** Avanade uses repeatable methodologies to achieve success for our customers. Avanade has developed proven methodologies based both on our experience and on the methodologies of Accenture and Microsoft.

### Conclusion

Challenges to support application portfolios based on diverse and disparate technologies with declining support from the technology vendors, ever-shrinking budgets, and increased pressures to cut costs across the IT service spectrum are driving businesses to reevaluate their application portfolios.

Implementing SOAs across an application portfolio provides the flexibility and agility you need to change and adapt to new business demands, while reducing overall application maintenance costs.

Avanade’s Migrate and Manage solutions use proven process, tools and skilled professionals to quickly and effectively migrate key applications to a long term, tested, and easily supported .NET Service Oriented Architecture which is adaptable to future demands and cost effective.

For more information on this and other solutions to business challenges, see [http://www.avanadeadvisor.com](http://www.avanadeadvisor.com).

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