

SODA, Reuse and Return on Investment: A Model

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The business benefits of service-oriented development of applications are widely touted. Our SODA model indicates that these benefits are real and achievable.

ANALYSIS

Service-oriented development of applications (SODA) isn't something that is or should be done simply because it's "cool" or "techy." It's a set of precepts that make solid business sense. However, it's been difficult to talk about what this really means. What's been missing is a real model that attempts to predict the benefits of SODA. That is what we will present here.

SODA is not a new concept; we've been discussing these methods and standards for many years. Leading organizations are already using SODA development in portions of their organizations. This trend will continue and expand rapidly during the next five years.

The major reason SODA is so valuable to application development (AD) organizations is that if done properly, it will enable organizations to deliver software better, faster and cheaper. Here, we'll concentrate on the ability of SODA delivery to reduce the overall costs of deploying software.

1. First, we'll predict the return on investment (ROI) that SODA AD is capable of delivering.
2. Next, we'll predict the overall expense reductions that an AD organization should be able to achieve using SODA concepts.

Hype vs. Reality

Both of these are key. The first is the typical hype that's generated by the vendor community. Organizations can and will obtain ROIs in the 6-to-1 range on SODA investments during a five-year payback period (0.7 probability). However, that's not the overall benefit that will be realized by AD organizations. SODA is predicated on reuse. Reuse of artifacts (from patterns and frameworks to test plans and test beds) gives benefits only on the projects in which reuse principles are applied. These projects are limited in nature and scale. So, a further prediction is necessary — one that attempts to predict the overall percentage of expense reduction. As a result of our model, in the fourth year and beyond, the average AD organization will be able to reduce its overall expenses by 10 percent to 15 percent (0.7 probability). By making these predictions, we can be optimistic (a major ROI) and realistic (overall good, but not massive, reductions in annual budgets).

The model will be exposed through the articles in this Spotlight. In "Reuse Is the Key to the SODA ROI Model," we explain the basic requirements for a reuse initiative, a prerequisite for SODA. "Balance the Risks Against the ROI in SODA Projects" discusses the issues, such as the need for platform interoperability and productivity, that drive organizations toward SODA use.

"SODA Return on Investment Model Productivity Factors" discusses how we will predict productivity improvements and the approaches an organization might take to achieve these improvements. "Assess the Productivity Factors for SODA" details our assumptions on productivity gains by year and by style.

"SODA Reuse Model Factors and Parameters" discusses the inner workings of the SODA reuse model. In "SODA Reuse Model: ROI and Cost Savings," we predict overall ROI by style, and also discuss overall expense savings. Lastly, in "ARAD Methods and Tools Improve Productivity and ROI," we discuss a set of interviews with clients of one SODA development tool vendor and the results they achieved by making the transition from traditional AD to a SODA approach.

SODA has great potential for delivering better, less-expensive software more swiftly. With the Gartner SODA ROI model, you can predict, based on a set of parameters, how much benefit your organization might realize.

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