

Implementing Enterprise Service Oriented Architecture

By William Kosinetz, Technology Information Management

**Sussex County**



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Department of Central and Shared Services

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The SOA strategy aligns software and data services directly with business processes so that specific services can be reused, mixed, and matched as needed. This development technology improves a company's ability to offer new improved business process services to the County's client base. This evolution of IT architecture can be defined in 4 stages. An IT driven strategic architecture consist of Business Silos, Standardized Technology, Standardized Processes, and Business Modularity, that both the organizational units and IT must pass through before SOA benefits can be fully realized.

Implementing SOA concept helps create a common vocabulary so the County's business units and the IT division start moving in the same direction. This business concept will lead us to a positive business process. This could also manufacture itself to a negative and more visible dysfunctional process as well. By having the County moving incrementally forward, gaining expertise, building evolution maturity, will sustain a competitive advantage and maximize the return on investments.

Stage 1: Business silos are focused on specific individual division's needs. Created and maintained without any enterprise level of growth and interdepartmental integration. This leads most enterprises to adopt standard platform technologies wherever possible. Using just one or two PC configurations, standard database technology for all divisions, and the same type of Operating System for all servers. A large diversity of technologies could never support enterprise growth and not to mention the amount of cost to support this diversity. Products that are appealing because of a low capital expense are only short term for it is the total cost of maintaining and integrating this diversity, which is the Total Cost of Ownership.

Stage 2: Standardizing technology platforms and identifying the increasing complexity of diversity is the first step in deciding what exactly should be standardized. The County's enterprise architecture exists in layers, from things like the network, hardware, operating systems and databases applications. The idea is to standardize on functions whenever possible. However, not to force fit them into the business level. This way of understanding business services provides advantages of core requirements needed to make sense for a specific business process, therefore avoiding a partially functional business technology.

Stage 3: Standardized Processes for the divisions are mostly focused on solving their specific, individual problems from within the employees that are responsible for providing that service. Moving to stage 3 is mostly a human factor, understandably when changing the business process and standardizing technology, this may be interpreted as a loss of control and perhaps even a loss of a optimal solution. When resolving standardization of processes with priorities to ensure that business objectives and Information Technology do not inadvertently standardize away a business critical technology function. Understanding business processes sufficiently to be able to standardize them is no small accomplishment.

Stage: 3 Cont.

It requires collaboration between the IT division and the business units. It's with both groups an effort that requires a understanding of services that are distributed within the business units. Many units use the same core processes, and allot of the same functions can be shared in one system to make them configurable for each of the divisions' service lines.

In addition, a detailed analysis is required to achieve these metrics. Without them, you can't be assured proper governance of services much less the standardization of business processes to run the County on one

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Enterprise Resource Planning system. Moving from the second stage to the third stage requires IT to keep improving its abilities and operations to deliver more sophisticated tools and resources to maintain this level optimization. It is at this stage that architecture begins to mean more than infrastructure. Data architecture and IT governance will create optimization. Business objectives will create business alignment and become critical aspects of the enterprise architecture. The IT division will then focus from managing the technology plumbing,

to contributing to the business operation's efficiencies. By putting real resources into evolving, planning, and ensuring standard definitions of data will make it easier for multiple systems to work with the same data sets and interpreting them correctly will better serve the County's customer base.

Stage 4: Business Modularity requires understanding what the functions are, where they are used, and what they affect. This in turn requires having an architecture design for both flexibility and consistency. The County cannot move to stage 4 until the enterprise has achieved stage 3 because in stage 3 the standardization process, this orientation is necessary to view the enterprise as modules of business services. The idea is to continuously adjust the service, and not necessarily the recreation of the service. The understanding of how to combine architecture, design, integration and operations will mature the organization into a more broadly defined operation. The goal now could change from saving money for the sake of reducing costs to freeing up resources that can be used to grow with the business. This transformation process will occur gradually, because of the immense volume of change and people must change along with the technology. Culturally both IT and business staff need to let go of being tactical and trust others to manage the details. Some of this occurs in moving from the stages. The third stage is the most difficult because different types of people must depend on others to shift their business processes.