Commentary

Adopting a Flexible Approach to Enterprise Architecture

Enterprise architecture can stifle creativity or it can foster innovation and growth. Keys to promoting flexibility — and thus enablement of innovation — are recommended.

Although rigid architectures may optimize processes, they stifle innovation and growth. These architectures are characterized by a heavy focus on standardization in the application layer, the enforcement of hardware and software "buy" lists and a primary goal of reducing IT costs and complexity.

Today's highly competitive financial services marketplace demands flexible architectures that enable rapid new product and service introduction, the repositioning of current products and services to grasp new opportunities or repel competitive threats, and the fulfillment of evolving decision support and regulatory requirements. Flexible architectures are focused on providing a framework to guide development and the building blocks for future applications and optimization of processes (see Figure 1). This latter goal is achieved through the use of architectural specification to 1) identify common requirements across applications, such as customer address information or standard account opening processes, and 2) stipulate which of these should be incorporated into infrastructure.

Figure 1
Comparison of Traditional and Emerging Architectures

<table>
<thead>
<tr>
<th>Traditional Architectures</th>
<th>Architectures for the Future</th>
</tr>
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<tbody>
<tr>
<td>By default</td>
<td>By design</td>
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<tr>
<td>IT-driven</td>
<td>Business-driven</td>
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<tr>
<td>Application focus</td>
<td>Infrastructure focus</td>
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<tr>
<td>Cost savings and control</td>
<td>Revenue-generation and efficiency</td>
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<td>Buy lists</td>
<td>Alternatives</td>
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Rigid architectures optimize current processes, but stifle creativity
Flexible architectures stimulate innovation and growth

Source: Gartner Research
To achieve an architecture that fosters flexibility and growth:

**Devote resources to architecture specification.** In the past, architecture — particularly at an enterprise level — has been frequently ignored, and, as a result, architecture is restricted to the description of the current state, instead of as a prescription for the future (see "Logical Architecture: What It Is and Why FSPs Should Care"). Financial services providers (FSPs) are increasingly recognizing the requirement for a planned architecture — for example, approximately 60 percent of retail banks with deposits of more than $1 billion have a documented architecture; by year-end 2003, approximately 80 percent expect to have one.

**Keep business drivers at the center.** The identification and mapping of business requirements at the outset is not sufficient. Documentation must be maintained and frequently revisited so that specifications — particularly at the physical and technology layers — can be adjusted as processes and strategies change, keeping the architecture alive and relevant. Maintaining close alignment between business and IT was, for example, cited as a critical success factor in one midsize FSP's data warehouse (DW) initiative (see "Business-Objective-Focused DW Project Nets FSP Success"). A focus on business drivers also enables the justification of resource dedication by senior management in terms they can understand.

**Enable alternatives by focusing architecture on boundary management, instead of the workings of individual applications.** What is of concern at the enterprise level is the degree to which applications adhere to the principles of flexibility and interoperability to ensure that they will persist over time (protecting the enterprise's investment) and they can contribute to the organization's infrastructure in terms of sharable data and processes. The final decision of how architectural requirements will be met is a business decision, with enterprise architecture and central IT providing guidance and insight in identifying alternatives and their true costs and enabling the chosen ones. Alternatives may encompass developing complying applications, filling requirements through integration or transformation layers, or the provision of required data or processes through some other source.

**Recognize true costs.** There are, however, differing costs associated with alternative methods of architectural compliance — or choosing not to apply. These costs must be assessed and assigned to the originating business unit. Costs should include all necessary transformations, extractions and loading procedures (which would be required, for example, if an application uses its own database, instead of directly accessing a centralized data warehouse), and externally sourced data. The cost of not being able to achieve specific business goals because of noncompliance must also be recognized and assessed. Business management must decide if the business gain it seeks to achieve by its choice outweighs the cost. Approximately one-quarter of U.S. retail banks with more than $1 billion in deposits that have a documented architecture claim that they are enabling alternatives while charging business units with the cost of noncompliance.

**Specify incentives for the creation and use of sharable assets.** Business units may be encouraged — affecting the cost/benefit equation — to make IT investments that will be reusable by other business units by being charged reduced costs for these investments based on the value they will receive. Alternatively, some FSP IT departments underwrite the initial development of sharable components. (see "First Union Banks Its Component Architecture Profits").

**Bottom Line:** How (and if) architecture is designed can directly affect an FSPs' future viability. Adopting flexible approaches translates into competitive advantage because business unit objections to architectural compliance are overcome with the provision of choice and the clear understanding of how choice affects individual and overall organizational operations.