

Enterprise architectures can improve intelligence

By Jaap Schekkerman

Recent surveys of CEOs, CIOs and other executives provide evidence of the growing importance of enterprise architecture (EA) over the last few years. In a recent study by the Institute for Enterprise Architecture Developments, EA was ranked near the top of the list of most important issues for CEOs and CIOs.

In the intelligence community, the success of the FBI's Trilogy IT modernization program shows the value of enterprise architecture. However, the FBI's reasons for adopting and implementing such a program are not unique and could easily be transferred to most intelligence and security organizations, where sharing information and collaboration with other organizations are key characteristics.

The FBI is currently modernizing its IT systems to support efforts to adopt a more bureau-wide, integrated approach to performing its critical mission operations – including terrorism prevention and federal crime investigation. A key element of these modernization programs is the use of an enterprise architecture: a blueprint of the agency's current and planned operating and systems environment, as well as an IT investment plan for transitioning between the two.

In a recently published report entitled "FBI is Taking Steps to Develop an Enterprise Architecture, but Much Remains to Be Accomplished", the Government Accountability Office (GAO) states that their research and experience in reviewing federal agency system modernization programs – including the FBI's – shows that attempting such programs without a well-defined and enforceable enterprise architecture results in non-integrated, standalone systems that are duplicative and do not effectively and efficiently support mission performance.

These GAO remarks reflect the importance of having an enterprise architecture in place, where various decisions related to business development and technology innovations need to be considered in a systemic manner within an EA framework of various architectures. Choices of methods and techniques have to be made in the context of the goals and objectives. The overarching EA framework should include business architecture, information architecture, information-systems architecture (data architecture), technology infrastructure architecture and things like software architecture.

So what's the problem? Well, many organizations have been paralyzed by the complexity of both business and technology, not to mention the rate of change in business and technology. Organizations that have decided to pursue IT projects still show an unacceptably high failure rate. Our great leap forward in business and technology-driven productivity has created a plethora of overlapping and confusing solutions, products and standards that increase the complexity and risks associated with every decision a CEO or CIO makes.

Added to this, exaggerated claims by vendors and standards bodies promoting the latest panacea product or standard are mind numbing. It is extremely difficult to develop and implement an enterprise architecture framework and approach that properly relates to the vast array of overlapping solutions, products and standards, much less an enterprise architecture framework that can be explained to financial decision-makers or the end-user community.

All this puts business and IT executives at a crossroads. There are tremendous rewards for organizations that are able to harness the vast

array of available options into a holistic EA framework of flexible domains and supportive technology that meet the rapidly evolving needs of their stakeholder communities. Enterprise architecture frameworks must effectively align business and IT resources and the processes that they enable, and the effects of enterprise architecture decisions must be calculated in financial terms – both costs and benefits.

The decisions related to strategy, business goals, information needs, data mapping, selection of product-independent systems and selection of specific hardware and software need to be guided by this EA framework to ensure maximum effectiveness and efficiency and the accompanied business cases should reflect real financial figures.

Enterprise architecture program

Enterprise architecture provides a mechanism that enables communication about the essential elements and functioning of the enterprise.

The precise, high-quality information an EA can provide makes it much easier for the organization to respond to the forces of change and make better decisions. And finally, because an EA enables organizations to reduce duplication and inconsistencies in information, they can dramatically improve ROI for future business and IT implementations common enterprise architecture information and building a repository to store it.

Focusing on enterprise architecture is focusing added value to the business in terms of return on information (ROI) and at the same time streamlining the technology to reduce complexity and costs.

An enterprise architecture program is not a panacea for success

The ultimate operational goal of any organization is to optimize the alignment of their customer and partner needs, business strategy, organizational culture, business, people, processes and technology. This optimization not only provides for efficient and cost-effective performance, but also helps ensure proper execution of the defined organizational goals and objectives.

However, by itself, an enterprise architecture program is not a panacea for success. It requires that the organizational goals and objectives are the right ones; and there are no inhibiting organizational, cultural, budgeting process and people compensation issues. These items are beyond the scope of enterprise architecture. Therefore, even a fully enabled enterprise architecture effort may only achieve incremental results, because the organizational issues presented above could limit the enterprise architecture's effectiveness.

This is not to say that enterprise architecture efforts are not integral in themselves, and do not bring exceptional value. However, if the hope is for revolutionary change in an organization, a more comprehensive business concepts innovation approach that includes an enterprise architecture program might be required. ■

This article is based on a recently released book entitled *The Economic Benefits of Enterprise Architecture*, Publisher Trafford Publishing, Canada; ISBN1-4120-6729-4.

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