

Eight Simple and Necessary Steps to Architecture Success

By Jane Carbone in conjunction with Harris Kern's Enterprise Computing Institute

We called our IT planning methodology the "Enterprise Architecture Toolkit" and it is based on what we learned:

1. Business involvement is a must; it is ideal to have a small business team with a big communications channel.
2. While a highly structured approach to architecture may be a good fit for a small, highly structured organization, a simpler, "smaller is better" approach to architecture has advantages when:
 - a. The business is very large or complex;
 - b. Knowledge of the business is spread out or isolated in "stovepipes";
 - c. The architects have a narrow scope, narrow architecture experience or are understaffed; The organization has limited time/ patience/ resources/ affection for IT planning.
3. The scope of architecture needs to be expressed in easily understood frameworks and standard outputs.
4. The architects must translate the outputs to key implementation projects with business metrics.
5. The data, function, technology, people, process and financial planning need to be closely linked.
6. The architecture process needs to include some form of IT governance to guide development.
7. A smaller (e.g., 5 to 8) rather than larger architecture team works best. The architects require broad business knowledge and deep IT experience to develop the necessary outputs.
8. The architects must also be able to develop very high-level, conceptual outputs to gain support and communicate the architecture across organizations.

Getting Started

So how can architects begin to achieve this utopia? To create and implement a truly achievable plan for IT, the architecture needs to address everything from the key business drivers through overcoming likely resistance. Before you become discouraged, let us introduce a solution—one which we know from experience works.

Our solution is a simplified set of methods and practices that

- Was developed based on lessons learned/best practices
- Includes three frameworks—business, architecture and implementation frameworks
- Is very practical—meets the business challenges of tight timeframes, resource constraints and on-going course corrections.

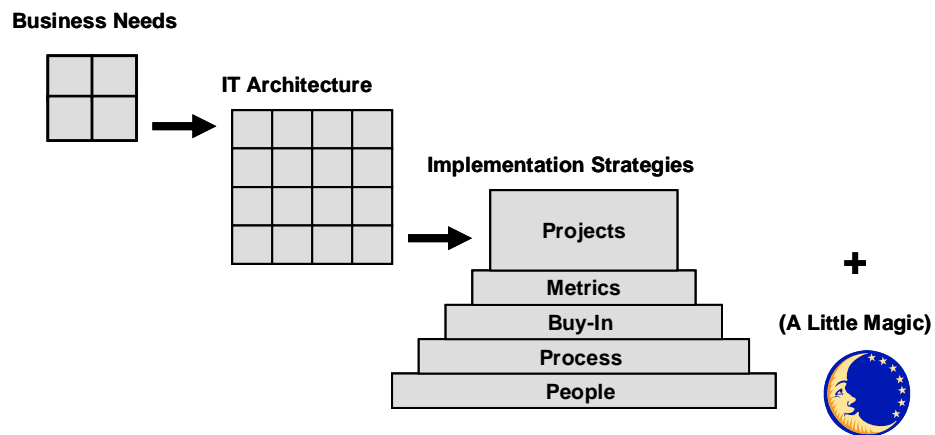
Let us begin with some of the basic definitions we use. The plan for IT can also be called an Enterprise Architecture, where **Enterprise**=All parts of the company, business unit, agency or organization.

Architecture=the set of plans that describes how all parts of the IT infrastructure need to behave to support the enterprise needs and goals. It includes all the data required to run the enterprise and the functions, technology and people that create, access, use or transform that data into information and ultimately, knowledge for the business.

Components of an Enterprise Architecture

For better or worse, enterprise architecture requires us to set a realistic scope for architecture within a broader-than-technical perspective. Figure 1-1 shows the scope of outputs we have found must be addressed for architecture to succeed. We call the set of outputs and the methods used to create them the “Enterprise Architecture Toolkit” (herein after referred to as “toolkit”).

Figure 1.1
Enterprise Architecture Toolkit



The Toolkit includes three frameworks. This is what they are meant to accomplish:

Business FrameworkThe Business Framework provides a roadmap for collecting and analyzing key knowledge about the enterprise that will *drive* architecture.

IT Framework*:

The IT Framework provides a roadmap for creating the outputs of IT architecture *and their relationships* that will enable business goals.

Implementation Strategies

Finally, the Toolkit includes a set of implementation strategies. These include best practices for addressing key areas that enable the *actualization* of the architecture

Comparison of Toolkit with Zachman Framework

John Zachman is truly the “Father of Enterprise Architecture.” The framework he has put forth has motivated hundreds—probably thousands—of IT planners to evaluate and consider what is really necessary to create an IT plan and why it is such an important undertaking. Since we are asked in almost every presentation and workshop how the toolkit compares with the Zachman Framework for Enterprise Architecture**, we will try to address that question here. The toolkit frameworks are both consistent with and diverge from the Zachman Framework.

The Toolkit Business Framework is roughly aligned with the “cells” in the Objectives/Scope row of the Zachman Framework—that is, the toolkit addresses the Data, Function, Network/Technology, People, Time and Motivation cells. What the toolkit adds are guidelines for collecting this data, and some methods for how to capture the data in a form that can be translated to architecture outputs. In the toolkit, the ability to integrate outputs within and across frameworks is a key concept—in fact, it is a prime driver for many of the methods. And since we have found the business connection to be so vital, we wanted to emphasize its importance by capturing the business needs in a separate framework.

The Toolkit Architecture Framework is roughly aligned with the Business Model (Conceptual) and Systems Model (Logical) rows of the Zachman Framework. The toolkit begins to venture into the Technology Model (physical) but only at the highest level—by assigning technology to the lowest level architecture models and by developing technology inventory and standards. The scope of our approach is IT planning and strategy (in Zachman, the Planner, Owner and Designer views), and does not include analysis and design (in Zachman, the Builder and Sub-contractor views), except to illustrate where that line is crossed and some examples of how to cross it.

In addition, the toolkit includes a Framework for Implementation. We have learned (the hard way!) that unless the IT plan includes certain project, process and people-focused plans and activities, even the best architecture may never begin to be realized.

Critical Success Factors

In case the frameworks picture was not worth a thousand words, these are what we have learned to be the critical success factors for IT architecture:

- A clear understanding of where the business is going vs. where it is
- An architecture scope that covers all the bases in the most simple, effective ways
- The translation of the architecture to a small set of well-scoped, business-oriented projects
- The development and tracking of metrics for each project
- The packaging or marketing of architecture
- Processes that support the architecture and the architects

And of course, it doesn't hurt to have boundless enthusiasm and remarkable perseverance. I once had a boss who wrote on my performance appraisal "she is very stubborn"—this is the kind of perseverance I mean.

*** While the business and implementation frameworks are of our own creation, we believe the IT framework to be based on a framework from CSC/Index Technologies, but could find no reference after an extensive search.**

****The Zachman framework has been presented at countless IT Conferences. My latest copy is from John Zachman's presentation "You Can't 'Cost Justify' Architecture" delivered at the DAMA International Symposium, San Antonio, TEXAS, on Sunday, April 28, 2002.**

A word about integration

The toolkit defines all the pieces of an architecture. What may not be apparent from the picture is that the outputs require integration—the output relationships to each other. For additional information refer to the book titled IT Architecture Toolkit by Jane Carbone, we will describe not only how to construct an IT plan, but also how to insure that it is integrated. We will address integration from several points of view—integration of the architecture with the business, integration across the IT framework architecture outputs and integration of the architecture with the organization. Figure 1-2 illustrates the process flow behind the toolkit and describes the implicit integration across framework outputs.

Figure 1-2
Toolkit Process Flow

