Staffing the Architecture Team

By Harris Kern's Enterprise Computing Institute

At the completion of a recent house renovation, I was surprised at how well everything went—the delivery schedule, the final cost and especially, the finished product—exactly as I had imagined it! It seems to me that the current clients of IT rarely have the same kind of overwhelmingly positive experience (in fact, if you know of a case, please email me!) Even though we have been at this computing business for decades, and even though we continue to improve the ways in which we plan and deliver new IT capabilities, in some areas our progress has been remarkably slow.

When I thought about what made the house project successful, I narrowed it down to a few factors:

- Key decisions (floor plan, budget, building permits, schedule) were made up front and weekly meetings were held to evaluate each potential glitch or modification against the plan
- Throughout the project, the communication was frequent, detailed and clear
- The roles (client, architect, builder, etc.) and responsibilities were clear

We all know stories of building experiences that did not have such happy endings. When it comes to IT, the scale of such failures or successes is often astronomical. Here are some examples of what really happens when there is little or no up-front IT planning, poor communication and unclear roles:

- A four-year operational scheduling project did not make it into production because the technology plan (developed in one organization) was never synched up with the business and architecture plans (a separate organization). The result: By the time the technology is fixed, the business function is drastically downsized and the new application is overkill.
- After five-years, a critical enterprise database project was still struggling for acceptance, because the IT leadership focused almost entirely on new technology, while the business wanted a solution for an urgent need—how to integrate acquired partners. The result: Funding is cut.
- The development organization began coding a multi-year, database-intensive major billing system overhaul before the planning organization developed an architecture and selected platform components (Operating System, DBMS, etc.) The result: On-going project delays.
- A three-year, extremely complex enterprise ordering system re-write became mired in conflict. An overly intricate technical design was completed and building begun

without an overall information plan in place and without agreement across interfacing functions and systems negotiated. The result: The project was cancelled.

It's pretty easy to see how an agreed-to, up-front, integrated IT plan (architecture) could have mitigated these situations. We have found that not only using a set of methods for developing an integrated, front-end architecture, but also defining and implementing key roles influences the success of IT implementations. We have looked at how some organizational changes can facilitate building and implementing target enterprise information architecture, while helping to avoid some of the costly mistakes we just described.

Here are some symptoms that may indicate the need for organizational shifts:

- No information plans exist or the plans are not tightly linked to the business;
- Where plans exist, there are planning "stovepipes"—a lack of common focus and no integration across data, technology and application plans;
- Where roles title exist, there are no clear boundaries, deliverables or accountability;
- The architects are viewed as the "painters" —not called in until everything is built, or worse, to cover up building mistakes.

Our prescription is straightforward, but requires management and individual commitment to implement. It is based on clear role definitions, defined outputs, and a forum for communicating. Much like the successful house-building team, the architect, the data, application and technology planners need to forge strong relationships based on a common plan, frequent communication and clear responsibilities. Working together with the business client, they can have a profound impact on IT implementations, and ultimately on business success (in which we most likely have a stake).

Here are descriptions of some of the roles we have found to be critical to the ultimate success of the IT organization—Information Steward, Integration Architect, Data Planner, Application Planner and Technology Planner. (These are roles—not necessarily a specific number of people.)

Information Steward—The role of the information steward is to provide end-to-end business ownership of key organization information, to set goals and priorities for the critical IT initiatives that enable the business goals and to facilitate decision-making/problem solving with regard to key initiatives. S/he provides guidance and direction for the IT governance process and ideally reports to a Business Unit head. The Information Steward is responsible for the delivery of key IT initiatives and associated business benefits.

Chief/Integration Architect—The role of the integration architect is to provide the plan for the organization's information and the applications and technology that process the information. The chief architect works with the business (e.g., information stewards) to formulate IT policies and plans that support the enterprise, reduce costs and leverage the use of existing assets. The architect also works across the IT organization to ensure architecture

compliance, conflict resolution and effective implementation. The architect chairs the IT governance forum and ideally reports to the Chief Information Officer. S/he is responsible to deliver, publish and maintain the organization's Information Technology Strategy and conceptual architecture models, and to deliver cost savings as specified in annual objectives.

Data Planner—The role of the data planner is to translate conceptual architecture models to logical data models, define key data standards, and recommend standard data practices (e.g., modeling methods, metadata strategy/repository tool). The data planner is a voting member of the IT governance forum and ideally, reports to the Architect. S/he is responsible to deliver conceptual data models that embody the architecture and, for new projects, logical data models that translate the architecture to input for system and database design.

Application Planner—The role of the application planner is to translate conceptual architecture models to de-coupled, reusable, functional services (chunks of code) and to recommend standard application development practices. The application planner is a voting member of the IT governance forum and, ideally, reports to the chief architect. S/he is responsible to deliver conceptual application models, and, for new projects, logical application models/flows that translate the architecture to input for system and database design.

Technology Planner—The role of the technology planner is to translate conceptual architecture to common architecture services and technology plans, to define a standard technical environment and to select standard platform components. The technology planner is a voting member of the IT governance forum, and ideally reports to the architect. S/he is responsible to deliver a technology plan, including platform standards that enables architecture implementation.

Neither organization design nor IT planning is a silver bullet. However, we have seen that IT implementations stand a much better chance for success when:

- the business has a well-defined role in IT planning and the business plans are communicated to IT up-front;
- the architect is clearly responsible to translate the business plans to cost-effective IT plans;
- the IT plans bring together key data, applications, and technology;
- there is a formal communications channel (i.e., governance process) for cooperatively surfacing and resolving conflicts among all the stakeholders, for evaluating changes and for providing consistent guidance.