Sunday, January 16, 2011

The Essential EA Toolkit Part 4 - An Enterprise Roadmap

This is the fourth and final part of my “The Essential EA Toolkit” series covering some recommended tools for Enterprise Architecture Teams. By "tools" I mean a few well-executed deliverables or processes that contribute enormous value to the enterprise. These are not technologies; they can be developed using typical office productivity technology and perhaps a collaboration application such as SharePoint. Before I start, here are links to the first three:

- Part 1 - Introduction and Business Capability Models
- Part 2 - A Reference Architecture and Standards Repository
- Part 3 - An Architecture Governance Process

In conclusion, the final tool is the Enterprise Roadmap...

An Enterprise Roadmap is the Linchpin for Transformation

The economic collapses of the 2000’s left a profound effect on businesses that includes a revaluation of how resources are spent on technology. As a result, IT budgets are lean, there is renewed focus on realistic business cases for investment, and CIOs recognize old ways of doing business will not work in the new economy. A mandate to transform is the legacy of these trying times.

Achieving a transformed ‘future state’ requires a tool to guide and govern day-to-day resource investment decisions - the Enterprise Roadmap. Roadmaps both compel us to towards the future and provide a basis for evaluating enterprise investment decisions required to get there. They are fast becoming necessary, and organizations without one will soon be left at a competitive disadvantage.

Good Roadmaps Have four Common elements

Besides a time-phased plan of action, good roadmaps have four other common elements:

- **Blueprints & Business Scenarios define a compelling future state**. In order to be successful Roadmaps must compel us to the future state - no organization will maintain the discipline required for success without these. ‘Blueprints’ form the basis of our vision, and are created a various levels, from business friendly ‘sketches’ to data, application and technology focused details. Business Scenarios complement Blueprints by describing the desired outcomes and identifying key people, process and technology changes required to achieve them. Blueprints and Business Scenarios cross reference each other, clearly telling the story: “If we do these things, we will get to where we want to be”.
- **Complexity is simplified by defining ‘Enterprise Programs’**. Large organizations are guaranteed to have many needs, competing agendas and a legacy of applications, technologies and desired projects. These challenge roadmap development by adding complexity. The best Roadmaps identify a few enterprise strategic themes, then rely on ‘Enterprise Programs’ to execute the appropriate steps. The old adage, ‘if everything is important, then nothing is’ rings true - good Roadmaps clearly identify important strategic goals and focus on attaining them.
- **Key Performance Indicators measure success and prevent failure**. Many external factors can influence business performance, therefore non-financial Key Performance Indicators (KPIs) are necessary. The best roadmaps assign non-redundant KPI goals to each Enterprise Program. For example, a ‘Common View of the Customer’ program should set data quality measures to assess confidence that there is a single view of every customer. Other programs should not also target customer data quality as a primary benefit. Programs must take early action when desired outcomes will not be reached. History is littered with failed efforts that recognized a different approach was required too late. Close monitoring of outcomes is a must to prevent Roadmap’s from derailing.
- **A high-level financial model provides insight and direction**. A high-level financial model is a final important component of a good Roadmap. Executives must be able to see quantified financial impacts in order to make large-scale investment decisions that roadmaps often require. The best models define program and project benefits to KPIs, which themselves are linked to expected financial performance; results are recorded over time using accounting standards to generate cash flow and expense projections. Project and program classifications allow analysis of cost and benefit by strategy, capability, process and line of business. Classification of project cost and benefit yields insight, answering the question, “are we investing in the right things to achieve what we want?”

Developing a Roadmap is Easy, The Hard Part is Successful Execution

Developing an Enterprise Roadmap is a difficult task, requiring a board-level mandate to transform and a significant shift in culture. Many organizations struggle with the necessary mindset as well as the format, employing management consultants, facilitated workshops and multiple attempts. Because of the sheer effort to produce one, businesses can easily over self-congratulate before any results have been recognized. The bottom line is that a Roadmap unexecuted or failed is as bad as no Roadmap at all because of the time wasted and the political fallout of such a failure - stay focused and take the following steps:

- **Maintain business ownership; establish accountability and governance**. Any successful Road-mapping effort required business ownership to complete; however fight the temptation to execution over to IT. This must not happen. Enterprise Roadmaps are tools to make business decisions about business and technology transformation. Keeping the business in possession of the roadmap requires enterprise accountability at the highest levels of any organization. Establishing clear decisions making authority and assigning results to executive performance requires an enterprise governance mechanism - this may be centralized or distributed with clear lines of responsibility. A Roadmap Execution Office, either as a single entity or virtual office, will be helpful.
- **Implement a Benefits Realization capability.** Successful execution of a roadmap requires methodical, consistent measurement of KPIs and translation of those into financial measurements when appropriate. Often the best way to accomplish this is through a Benefits Realization capability. I say 'capability' because there are a mix of people, process and technology approaches that work. The commonality is that they all assign KPI to executives and programs, ensure that projects build out facilities to measure performance, and feed the results to enterprise reporting so action can be taken if expected outcomes are not achieved.
- **Execute disciplined information and change management.** Execution of a roadmap involves collecting a lot of information about the your organization - strategies, projects, process and technology blueprints, financial and KPI projections, etc. This information will change overtime resulting in many '.ppts' with different versions of the Roadmap. Besides preventing confusion as changes happen overtime, the biggest challenge is ensuring that the right information is brought forward to leadership for governance decisions. A roadmap Execution Office, proper change control processes and some technology tooling will help ensure the integrity and quality of the roadmap source data.
- **Exercise patience and a first-things-first attitude.** Roadmaps can span varying lengths of time, but generally target three to five years. Undoubtedly, there are some 'foundational' things that must be done in order to achieve the desired benefits that are part of early project work, and often these efforts show little in the way of 'hard', bottom line impacting benefits. The existence of foundational work means that the roadmap may not show dramatic benefits over the first year or two of execution; in today's economy, this can be very hard to abide. While roadmaps should have 'quick hit' projects that deliver short term benefit in an effort to partially self fund, tactical investment is not the point. Successful organizations must be committed to the end-game of the roadmap and have the discipline and patience to invest in foundational things first.

Posted by Brian Hopkins 0 comments Links to this post

Monday, July 26, 2010

The Essential EA Toolkit (Part 1)

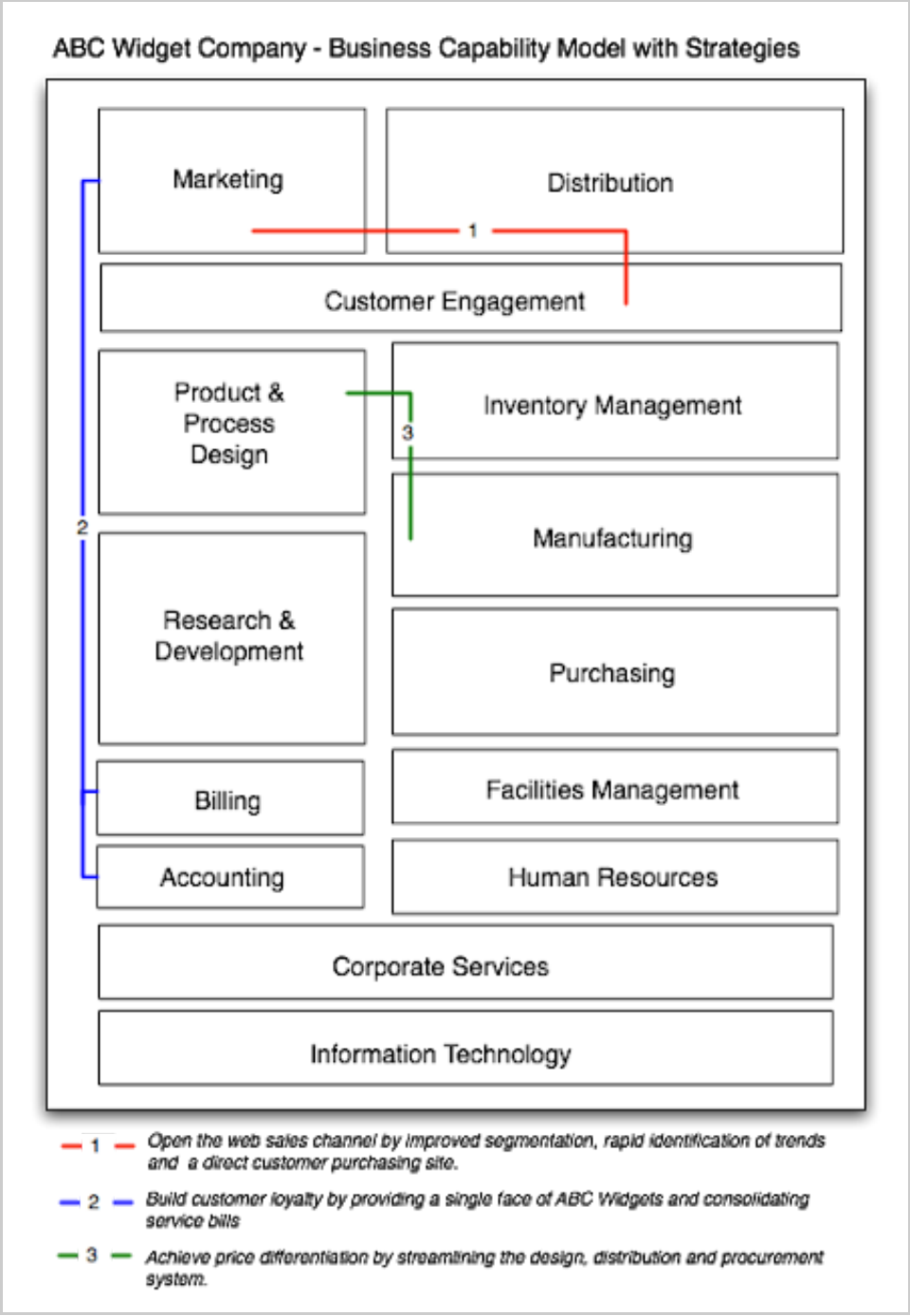
In order to be effective, Enterprise Architecture teams need "tools" in their toolkit, and I don't mean technologies like System Architect or Troux. Rather, I am referring to a few deliverables that create enormous value for your business and can be realized as simple drawings, processes and existing collaboration applications.

This four part post presents for your consideration some of the more effective tools I've identified:

1. A Business Capability Model
2. A Standards Repository based on a Reference Architecture
3. An Architecture Governance Process
4. A Strategic Blue Print and an Enterprise Roadmap.

Tool 1 - A Business Capability Model

A recurring theme of this blog is the creation of business value through simple, easily consumed deliverables, which requires a common language in order to develop a pool of shared meaning (see Who's On First?). The moment a team realizes that it has to be able to talk to the business but does not know how is one of the bigger "a ha" milestones in EA maturation. A Business Capability Model provides a foundation for this type of communication. It is a simple "nested boxes" diagram that represents the "capabilities" a business has or desires. Here is an example, shown with some Strategy overlays:



You may notice that much of the model looks similar to a corporate organization chart, however the model is different - it is purely based on capabilities and not company divisions or locations. It may have some boxes that correlate to corporate divisions, but some do not. The best example is "Customer Engagement".

Since many divisions deal with customers in some form or fashion, Customer Engagement is something an Enterprise must be able to do well across organizational boundaries. When no single executive has accountability for the

Capability except the CEO, getting things done at a working level becomes challenging. One solution is to assign the single accountability; however that may not always be practical.

The Business Capability Model helps align executive stakeholders when it is not by creating a set of “lenses” for describing the architecture in ways that are immediately useful to the business. Because the model is based on Capabilities, vice divisions, it drives enterprise thinking; especially in those Capabilities that are share functions with more than one department.

Continuing the Customer Engagement example, a set of “Customer Engagement” architecture deliverables can be created that clearly communicate enterprise strategy, provide a basis for cross divisional alignment and set expectations for investment.

Here are some practical uses of the model:

- As implied, Architecture deliverables can be cast in terms of a Capability providing different views of the Enterprise Architecture to different stakeholders. For example, executives concerned with customer interactions, such as Marketing and Distribution, can focus on the Customer Engagement roadmap while those in Manufacturing and Purchasing may not pay as much attention. See The Quantum of Integration for more on the power of Views in architecture.
- Strategy overlays, as show above, are a useful way to identify required investment. For example, the strategy to “Open Web sales channels by improved segmentation…”, show as a red line, impacts the Marketing, Distribution and Customer Engagement capabilities. Further drill down into these, specifically identifying functions that must be enabled or improved, can yield an appropriate set of IT investments focused on delivering the strategy.
- Capabilities can be used to classify investments as part of a roadmap. For example, capturing a qualitative estimate of the % contribution of an investment to driving Capabilities allows analysis of corporate investment against strategy. Picture a pie chart of total investment by strategy as “gut check” tool for executives.
- Applications can be analyzed by Capability in a similar fashion to process and investments. An analysis of applications and planned investments by Capability can produce useful decision aids as organizations make budget decisions.

In developing the Business Capability Model, there are a few traps to avoid:

- Avoid overcomplicating the model. Shoot to have no more than 15 components and go one level deep to begin with. Since the model is used for communications to the business, ensure that it is something a business executive can look at and digest without a lot of explanation. Go for the “I get it” expression.
- Ensure the business buys into the model, and preferably helps IT develop it. The model is a combination of architecture “purity” and business pragmatism. Many early attempts at such a models gave names to the boxes that no business person understood. We architects may get it, but this is not a tool for us. In my personal experience, it took three or four attempts over as many years before we landed on a model that the business accepted.

After you have a working model and are using it to effectively deliver value to the business, take next steps like decomposing the first level components into functions and defining relationships between the components according to business process that cross capability boundaries.

Next week, I’ll continue this discussion with Tool 2 - A Standards Repository and a Reference Architecture.

Posted by Brian Hopkins 0 comments  Links to this post

Wednesday, April 28, 2010

All the Clams We Can Eat!

"Pismo Beach, and all the clams we can eat!" declare Bugs Bunny and Daffy Duck in the 1954 classic, Ali Baba Bunny. They emerge from their tunnel, shovel and pail in hand, only to realize they are in the middle of the Arabian Desert. Scanning his map, Bugs goes on to blame their misfortune on missing the left turn at "Alba-koi-kee".

Many organizations undertook Portfolio Rationalization, hoping to get to Pismo, only to end up somewhere else. They were missing an Enterprise Roadmap, which would have marked the turn left at Albuquerque. Portfolio management was a huge advancement for organizations seeking a means to handle their burgeoning inventory of departmental applications, however it ultimately fails because it is not driven by a cohesive business strategy and does not enable tough, enterprise trade-offs regarding limited resources.

In my November 2009 post, Real Architects Don't Wear Ties, I offer a definition of Enterprise Architecture,

"**Enterprise Architecture** - *a body of information that reconciles competing organizational forces and perspectives into a cohesive, enterprise blueprint and roadmap. The Enterprise Architecture supports making the tough decisions necessary to get from where the organization is now (current state) to where it wants to be (future state) in an efficient manner. At the end of the day it's about investing limited resources in the right people, process, financial and technology changes to move to a desired state."*

A key feature of that definition is the identification of an Enterprise Roadmap as the critical EA deliverable and a crucial organizational governance tool. The remainder of this post describes key characteristics of an Enterprise Roadmap and some hurdles you may encounter developing one.

Key characteristics of a successful Enterprise Roadmap:

- ***It is written in business language*** - the roadmap is a tool to help executive's make trade off decisions regarding limited resources. The language and graphics in the roadmap must resonate with those executives. How much "technospeak" it can contain is a function of the business you are in and the executive's IT knowledge.
- ***It is sponsored, and potentially co-written, by senior business leaders*** - this goes hand-in-hand with the first bullet. The best way to get the roadmap written in business language is to partner with the business in writing it. It is crucial to have a few key executives and the CIO bought in to the roadmap to assist in selling it to the rest of the business.
- **It illustrates the future state of the business in a compelling manner** - successful roadmaps are broadly accepted by the business, adding a sales component to the development process. Its is not enough to have a technically sound deliverable. The future state description must be compelling. Consider "Case Studies" targeted at specific executives to tell a story about how the Enterprise Roadmap impacts them and drives outcomes they desire.
- **It describes the organization in terms of a functional capability model** - an Enterprise Roadmap is not simply an aggregation of portfolio roadmaps, even though that is not a bad place to start. The roadmap over comes organizational and IT politics exactly because it addresses stakeholder concerns in a neutral way according to organizational capabilities. Gartner calls this a Business Anchor Model, while IBM provides a Component Business Model. You can see an example of one on slide 13 of this presentation. Use such a model to organize sections of the roadmap and provide a basis for aggregating financials.

- **It calls out gaps and identifies capabilities needed to fill them** - the business is most interested in the capabilities IT will deliver, not the applications or technology. Put another way, unless the business is extremely IT savvy, talking in terms of future application or software platform names will mean very little. Instead, do an analysis of business goals against current-state capabilities, identify gaps, and define future-state capabilities as key objectives of the roadmap; then link investments to delivering these.
- **Dependencies are identified** - be sure to identify critical dependencies between investments. Since resources are always limited, part of the roadmaping process will be constraining the desired "all in" investment total to something that is achievable. This inevitably means trade-off decisions. The roadmap should allow executives to know what investments must be funded and in what order to achieve desired capabilities.
- **It provides an aggregate financial view the future** - one of the ways you know a roadmapping effort is sucessful is the question, "so how much will all this cost". The roadmap should come loaded with the answer in terms of financial models (charts and graphs). These models should illustrate total required investment and the impacts of capitalization on annual expense. It should also provide a projection of future impacts to the company bottom line (the benefits).
- **Progress against it can be measured** - another question that indicates you are on the right track is, "So how will we know if we are achieving the roadmap?". A successful roadmap uses the capability milestones and financial metrics as markers to measure progress. A series of "interim states" can be identified in the roadmap that call out capabilities delivered and the impacts of those capabilities on business Key Performance Indicators (KPIs). This will go along way to making the roadmap compelling.
- **It addresses organizational readiness** - a final question the roadmap must answer is, "Are we ready to do this?". Since an IT objective of the roadmap is to build confidence and credibility in the technology organization's ability to deliver, having a frank analysis of readiness will build credibility. Also, in developing the technology component of the roadmap, take care to avoid early solutions that the business is not ready for. As an example, an ERP or CRM technology might be indicated by business requirements, but if the business is not ready for the level of process change required to be successful in these types of implementations, recommending them early in the roadmap is not advisable. In this example, the roadmap can call out business process change management as a key dependency that must precede an ERP implementation.
- **It supports drill down to the detail** - inevitably some executive will latch on to something in a roadmap and "go down the rabbit hole". The underlying detail to support the high-level direction of the roadmap must be available. Without supporting detail, a roadmap's credibility is in jeopardy. I cover some useful techniques for clearing political hurdles and overcoming objections next.
- **It illustrates the impacts on technology cost** - a common requirement of most large organizations is to manage the cost of technology and almost always reduce it. Two main contributors to technology cost are application environment complexity and shared infrastructure cost. An Enterprise Roadmap should show how the proposed investments impact these over time.

On the journey, you may encounter a few obstacles; overcoming these is crucial to success. Here are a few -

- **Resources and organizational focus** - developing a roadmap requires significant organizational focus and substantial time from senior executives. It also requires Enterprise Architects with the knowledge and skill to work closely and directly with business partners to get beyond technospeak and down to the brass tacks of what is needed. Because of this, expectations regarding the amount of time and collaboration required to create the roadmap must be set with the "C" level. If the "C" executives are not committed to the roadmap, the next tier of executives will not be available to the extent needed. Expect 6-9 months of continuous effort for a Fortune 500 sized organization's initial enterprise roadmapping endeavor.
- **Over coming line-of-business politics** - the level to which executives are willing to

trade-off benefits to their lines of business for enterprise ones will affect the severity of this obstacle. The difficulty manifests when influential leaders are less than enthusiastic about the roadmap because a trade-off decision works against their agenda and performance metrics. Organizational incentives are a contributing factor. When a manager's performance is tied to KPIs specific to their line of business and not the enterprise, this obstacle is more likely. This is where "C" level sponsorship is crucial - managers are less likely to oppose or drag their feet for an initiative that is strongly supported by the CEO.

- **Over coming IT Cost Allocation issues** - since a roadmap should describe the proposed investment's impact on Total Cost of Ownership, the issue of IT cost allocation may cause problems. In my post, Calling Out Pesky Pachyderms, I name this issue as the big white elephant that many organizations do not want to deal with. In order to illustrate the technology cost impacts of the roadmap, you have to agree to what technology actually costs and assign accountability for that cost among portfolios that need to manage it. As an example, the roadmap model must have a way to indicate that the cost of a legacy accounting application is $XM, and that retiring that application will result in some % of the $XM in savings. Ensure that part of your organization's commitment to having a roadmap includes the development of a cost allocation model that will be accepted by business and technology executives.
- **Constraining the Roadmap** - since most enterprise roadmaps start off as a aggregation of all business unit desires for IT investment, the total price tag is likely to be much more than your organization is willing to spend. The really hard work of a roadmap, once the "all in" financials are known, is answering the question, "what of all this really drives us to where we need to be?" Inevitably, trade-offs will be needed and projects will end up on the editing room floor. Trying to over come this obstacle in the midst of creating the roadmap can be extremely difficult because there may be the unspoken expectation among executives that this roadmapping effort will finally make some things happen in their business unit that are high on their agenda. The key to solving this is a strong, centralized IT investment governance body that includes representatives from all business areas. Make it clear that this body is the roadmap approving authority and responsible for setting priorities and making constraining decisions. Ensure this body reports directly to the CEO (not the CIO), and ensure the CEO is the final arbiter.

In closing, you may have noticed that I say little about the format of the roadmap or provide references to templates other than the anchor model. There are an abundance of roadmap examples out there; the Enterprise Architecture Executive Council has a nice package as does Gartner and Forrester. I deliberately stay away from this because I believe that the exact format of a roadmap is something each organization has to find for itself. Because the roadmap must communicate to business and IT executives in a way that they understand, it is very difficult to get it right when starting with somebody else's template. My suggestion for those of you starting the journey is to research examples, but start with a series of questions the roadmap should answer. Work with leadership to ensure you are answering the right questions, then create a blank presentation with slides for each question or group of questions. You can then have conversations with decisions makers about the information contents of each slide that would best answer the target questions. Last, design some models, charts or tables of data as appropriate to supplement bullet text and narrative for each slide. Then iterate.

Before you know it, you'll be in Pismo eating Clams!

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