

Article

A Plain English Introduction to Enterprise Architecture

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Abstract

One of the prime barriers to effective engagement with enterprise stakeholders is the use of language that they do not understand. This article seeks to convey the answers to questions in relation to the why, what, and how of Enterprise Architecture (EA) in plain business language.

INTRODUCTION

This article emerges out of working as a “consulting business architect” and the principle of engaging with clients and their stakeholders in ways that are meaningful to them. The key implications in pursuing this principle are to:

- Avoid using technical jargon
- Use appropriate client language – their own “keywords”, those of the markets in which they operate, and those of the industries of which they are part
- Immerse oneself in the client environment and learn as quickly as possible about:
 - The language in use
 - The significance of key terms
 - The intended meanings of these terms
 - The associated processes and practices that are associated with these terms

The first point of engagement with an executive team requires an outline of:

- Why the work has been initiated
- What will be delivered
- What the value of these deliverables will be to the executive team
- How the work will be approached

It is important that this is conveyed in plain business language. More to the point, it is important not to introduce a whole new language with terminology that makes it difficult for them to understand the essence of the engagement – the description of purpose, value, deliverables, and approach that will be taken.

This has led to the view that there would be value in developing an engagement artifact which captures the essence of the “enterprise architecture story” for use in the initiation phase of any Enterprise Architecture (EA) assignment. This would be distinct from any EA Body of

Knowledge or EA Methodology that seeks to describe these same elements, but is expressed in language used by EA professionals amongst themselves.

Since one of the key skills of a business architect is the understanding of the language used in a business context, this exercise should be easy for any business architect – simply requiring architects to apply greater discipline in communication of architectural practice and to be self-reflective about this practice. The result aims to be of value to any business architect, advancing the practice of developing and maintaining EAs.

OVERVIEW OF ENTERPRISE ARCHITECTURE

Enterprise Architecture (a term which will only be used in this section and in section headings in this article) entails the modeling of the structure of an enterprise from various perspectives, identifying composite parts, and the inter-relationship of these parts. “Modeling” is an expression that can be used with stakeholders in place of the term “architecture” (used amongst EA professionals). The use of this alternate term has proven to be effective in that:

- A number of the products are often called “models” – process models, capability models, information models, operating models.
- Stakeholders have related well to use of this term (in the author’s experience).

The primary objective of enterprise modeling is to understand and represent the current and intended operating models of an organization. This will enable the shaping of a program of change which has greater likelihood of taking the organization from where it is now to where the executive determines it needs to be in the future. That future would normally be expressed through the business strategy.

The resultant change strategy outlines the means by which the organization will transition from its current mode of operation to that determined by the executive to

be necessary to fulfill the business strategy and associated business goals and outcomes.

The process of describing the intended operating model provides a vehicle through which the various business units within an organization can see how they need to operate together in the future. In effect, the process helps organizations to work together better through:

- Developing a shared understanding of their future operating model
- Identifying the various inter-dependencies that will be critical to the success of the future operating model
- Identifying and exposing what were previously hidden assumptions about these inter-dependencies and the reliance that different parts of the organization will have on each other
- Creating a visual model of the future mode of operation which is more readily understood by all the relevant stakeholders
- Achieving a greater degree of organizational coherence than would otherwise have been the case

The increased visibility and awareness of organizational capabilities also means that the organization will have an increased capacity to respond to new market demands and opportunities, increasing the capacity of the organization to adapt to the rapidly changing environment in which it operates.

PURPOSE OF ENTERPRISE ARCHITECTURE

The purpose of modeling the enterprise is not unlike any other modeling exercise. It aims to:

- Provide a representation which can be more easily understood across a wide and diverse audience
- Enable better understanding of the organization and its future intentions
- Allow exploration of different strategies for realizing its future intentions
- Provide a more explicit basis for planning the changes necessary to realize its future intended model of operation

VALUE OF ENTERPRISE ARCHITECTURE

The greatest value of modeling an enterprise derives from the need for shared decision-making when enterprises recognize:

- The opportunity to rationalize and consolidate business capabilities to provide shared business capabilities
- The need to understand and better manage the inter-dependencies between business capabilities

- The need for greater flexibility in the organization of their business capabilities to maintain a sustainable position in increasingly dynamic market environments

The development of these models contributes to improved enterprise capability and performance. There are many different disciplines and approaches that contribute to improved enterprise capability and performance. For example, the HR discipline includes the field of organizational development, which seeks to support the improvement of the organization's performance. The engineering discipline includes the field of quality management that also seeks to support improved enterprise performance. The question arises as to what this modeling offers in addition to that which is provided by other disciplines? The primary additional value is provided through a disciplined approach to identifying the business capabilities needed to implement business strategy and realize the intended business outcomes, such that it enables participants to:

- Check for completeness
- Establish broader, shared understanding of what will need to be changed
- Identify more of the dependencies and what are often hidden assumptions in change programs
- Draw on this information in the early program formulation and investment assessment/approval phases

The modeling provides an intermediary step between strategy development and planning. It can be applied at multiple levels – business planning, change planning, and project planning, as shown in Figure 1.

At each level, the development of the model can provide value to the preceding step or input (strategy) as a quality assurance and feedback mechanism and it provides value to the next step in providing key inputs to planning. Hence, the modeling work can contribute to:

- Refinement of business strategy
- Formation of change strategy and plans for executing business strategy
- Execution of change strategy and realization of intended enterprise capability and outcomes

With respect to business strategy formation, where business strategy seeks to leverage business capabilities to exploit or even create market opportunities, the role and value of modeling is to more fully identify the capabilities implicit in the strategy and their adequacy to support the strategy. So, the emerging business strategy becomes more executable because there are less inherent, invisible assumptions made which later would have proved to be the undoing of the business strategy.

In relation to business change strategy formation, the business strategy is taken as an input with limited attention or intention to changing the business strategy, except in those instances where the program strategy formation provides insight into the difficulty and decreasing favorability of pursuing the stated business strategy. The modeling outputs for the business change strategy are used in making more explicit the capabilities needing change and the inter-dependencies between these capabilities.

The creation and maintenance of enterprise capability models provides assurance to business strategy and change strategy development and informs business and change planning and execution. It becomes a critical capability in strengthening the ability of an enterprise to effect business change in a manner which is cost-effective, reliable, and responsive to external demands. By applying the rigor and discipline of understanding inter-dependencies and providing traceability between these inter-dependencies, a more robust and more-likely-to-achieve-success change strategy and change plan are produced.

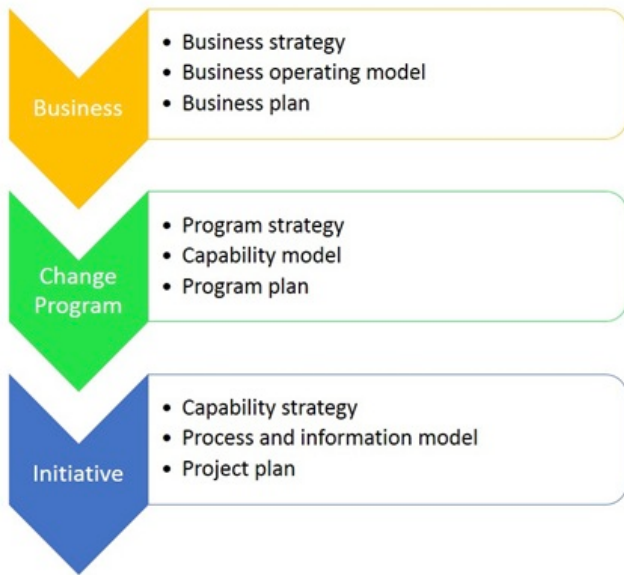


Figure 1: Intermediary Role of Models

DELIVERABLES OF ENTERPRISE ARCHITECTURE

There are two primary outputs of modeling:

- Models – the intended business operating model for the enterprise
- Assessments – gaps in capability between intended and current models

There are a variety of perspectives that are required to understand the operation of an enterprise. This is no different from other fields of architecture. In the design of

a house, there are many different views that are part of the plans:

- Site plan – location of outline on your block of land
- Structural plan – outline of all walls, doors, windows
- Electrical plan – wiring for power and lighting, location of street connection, etc.
- Plumbing plan – location of all pipes

For an enterprise, there are a variety of models or plans, each with a different focus, including:

- Organizational models – organization chart plus job specifications for each position
- Finance models – chart of accounts, annual budget, financial delegations
- Process models – in the past, developed by each manager through documenting procedures, operations manual, training guides, induction document, etc.
- Information models – when all on paper, the records management system was the structure for retention and access to information
- Asset models – asset register, plant and equipment register, etc.

For some perspectives, there are different levels of granularity, allowing stakeholders to consider the components in scope within a broader context, or to consider more explicit detail and composition of the components in scope.

A house plan can include one diagram indicating the proposed location of the house on the block of land, and another diagram showing the detail of the kitchen, with details relating to the position of cupboards and appliances. Similarly, an organizational model can show the divisional structure at one level, and the team structure at another. This approach is applied to a range of components, including people, process, information, assets, systems, and infrastructure.

These models enable identification of:

- Capability dependencies
- Opportunities or demands for improvement
- Alignment of change strategy for dependent capabilities
- Value in realizing greater enterprise integration

APPROACH TO ENTERPRISE ARCHITECTURE

As indicated earlier, the development of various models acts as an intermediary step between strategy development and implementation planning. The broad steps and products are shown in Figure 2.

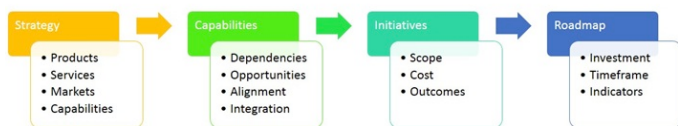


Figure 2: Key Steps from Strategy to Roadmap

The broad approach to development of the various enterprise model perspectives entails:

- Identification of the business capabilities required to support the proposed business strategy
- Identification of business and technical capability dependencies
- Assessment of the capability gaps between the required capabilities and current capabilities

With this information, it is then possible to develop a program of change initiatives that provides an integrated approach to the strengthening of business and technical capabilities that will realize the intended goals of the enterprise.

The approach requires being clear about outputs (products or services), and then about the capabilities needed to deliver these outputs, using value chain type analysis. In this way, key dependencies that have not been identified or critical capabilities in the value chain are identified as targets for improvement as part of the business change program necessary to execute the business strategy successfully.

Each capability is considered from a range of perspectives (people, process, information, technology, assets, supplies) to determine the basis of the weaknesses such that the estimated effort to redress the weaknesses is of better quality.

CONCLUSION

The application of Enterprise Architecture disciplines varies dependent on the framework being used, both with respect to the information collected and generated, and the methodology used. This will change the detail of the communication with stakeholders from that outlined above, which necessarily was based on a particular framework.

Nevertheless, the intent is to demonstrate an approach whereby the key motivations, deliverables, and approach to deploying an EA approach to planning activities in enterprises can be communicated in language which is more natural to stakeholders than the language used between EA professionals.

ABOUT THE AUTHOR

Peter Murchland is a consultant in the corporate governance and business architecture space. He has spent his career acting as a facilitator and translator between executives and technologists in developing strategies, architectures, and execution plans for businesses, programs, and projects. His experience is based around enterprises in the 50 to 5,000 employee range, across the private, public, and community sectors, in government, education, health, justice, defense, utilities, and service industries.