The Power of Linking Business Analysis and TOGAF® to Achieve IT Results

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Introduction

This white paper addresses the changing role of IT in organizations to ensure technology is aligned with business priorities, goals, and strategy. Business transformation requires technology support the business capabilities and expected outcomes. IT professionals must have a more holistic perspective on the enterprise to understand the long-term strategy, goals, and vision for the business. Accomplishing this goal means applying business analysis techniques to the industry standard methods of The Open Group's Architecture Framework, TOGAF®, for enterprise architecture.

The most widely used enterprise architecture approach, TOGAF, will be referenced to demonstrate how business analysis skills enable IT professionals to view the business across two layers of the TOGAF framework: 1) Architectural Principles, Vision, and Requirements, and 2) Business Architecture. The focus of IT professionals has traditionally been limited to the Technology Architecture layer of the TOGAF framework. However, specific business analysis skills will be introduced to demonstrate how they can be applied for articulating each of the two TOGAF layers.

The list of business analysis skills and techniques can be exhaustive; therefore, a few skills and techniques will be presented for each of the two layers. The intent is to heighten the awareness of these tools and the need for additional professional development to understand their application.

Business Transformation

Business transformation is driving a change in the relationship between IT organizations and the Lines of Business (LoBs). Organizations are interested in realizing value from their technology investments and are seeking ways to ensure business strategy shapes technological investments supporting existing and new business capabilities, which ultimately results in business value.

Internal and external forces are requiring businesses to be more responsive to ensure that their value proposition both supports and enhances their value to customers. This requires strategic, operational, technology, and management changes within an enterprise.

As part of this transformation, CIOs are confronted with establishing a technological approach that is responsive and aligned with the CEO's business strategy. IT professionals are increasingly required to more fully understand business needs, priorities, objectives, and strategy. This requires knowledge acquisition about the business in an effort to transform from a technology-centric to a business-centric view.

IT professionals can accelerate this transformative effort by viewing business from an enterprise architecture perspective. Acquiring an awareness of business analysis skills and techniques enables them to effectively engage

with business leaders and stakeholders to establish a holistic view of the business. The power of linking the TOGAF enterprise architecture framework with valuable business analysis skills enables the IT professional and the organization to achieve value-added results.

Traditional Silos Between IT and the Business

IT departments and the LoBs continue to operate in silos where it is difficult to align technology capabilities to business priorities, goals, and long-term strategy. Effective business transformation requires the IT organization be aligned with business strategy; this ensures the technology infrastructure adequately supports business capabilities to meet outcomes and drive value.

Bridging the gap between IT and the business helps build credibility for IT professionals and provides a higher degree of assurance that technology solutions will support business capabilities and needs.

IT professionals can bridge this gap by employing business analysis skills and techniques to gain a better understanding of the organization. This enables an approach to technology solutions from a business perspective instead of first defining technical solutions that require business alignment. Having a thorough understanding of the business also helps IT professionals establish credibility with respective business stakeholders. This is a "business-first" approach to defining technology solutions.

The TOGAF model is one that IT professionals can use to gain a more thorough and holistic view of the business. Business analysis skills and techniques can be applied to different layers of the TOGAF framework.

TOGAF Overview

The TOGAF framework is a globally recognized standard for articulating an enterprise architecture. It is comprehensive and provides organizations with the capability to ensure all of the architectural components are aligned to the strategic direction of the business.

The benefits of employing TOGAF documentation are:

- Ensuring that everyone speaks the same language
- Avoiding lock-in to proprietary solutions by standardizing on open methods for Enterprise Architecture
- Saving time and money and utilizing resources more effectively
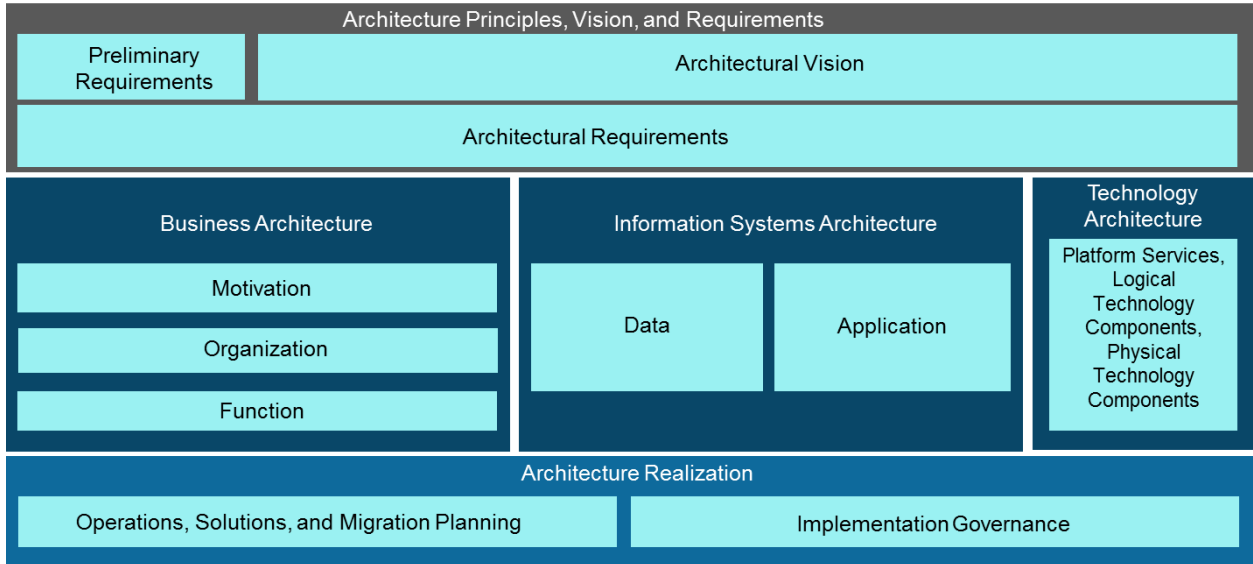- Achieving demonstrable Return-On-Investment (ROI)

Figure 1. The TOGAF Structure and Its Components. Source: The Open Group

TOGAF Layers

For the purposes of this white paper, the TOGAF framework will be discussed in the context of five layers with the continued emphasis on the first two noted below. The Open Group describes these layers as:

1. <u>Architecture Principles, Vision, and Requirements:</u> This layer describes the initial phase of an architecture development cycle. It includes information about defining the scope, identifying the stakeholders, creating the Architecture Vision, and obtaining approvals.
2. <u>Business Architecture:</u> describes the development of a Business Architecture to support an agreed Architecture Vision.
3. <u>Information Systems Architecture:</u> This layer describes the development of Information Systems Architectures for an architecture project including the development of Data and Application Architectures.
4. <u>Technology Architecture:</u> This layer describes the development of the Technology Architecture for an architecture project.
5. <u>Architecture Realization:</u> This layer is the realization of the architectural components that are necessary for driving business value.

Traditionally, IT professionals have been focused on the Technology Architecture layer and specific technologies and technology solutions. Limiting the focus to this layer is analogous to working in a silo by not having a holistic view of the business. This results in a misalignment with business principles, vision, requirements, and architecture.

TOGAF Architecture Principles, Vision, and Requirements Layer

This layer considers the architectural vision from a business perspective that ties the business, technology, and architecture strategies together. Furthermore, the architectural requirements take into account business requirements, constraints, assumptions, and gaps. Identifying gaps is important in order to differentiate between the current and future states of the business.

Architecture Principles, Vision, and Requirements					
Preliminary	Architectural Vision				
Architecture Principles	Business Strategy	Technology Strategy	Business Principles, Objectives & Drivers	Architecture Strategy	Stakeholders
Architectural Requirements					
Requirements		Constraints	Assumptions		Gaps

Business Architecture			Information Systems Architecture			Technology Architecture	
Motivation			Data		Application	Platform Services	
Drivers	Goals	Objectives	Measures		Data Entities	Information System Services	
Organization			Logical Data Components	Logical Application Components	Logical Technology Components		
Organizational Units	Location	Actors, Roles	Physical Data Components	Physical Application Components	Physical Technology Components		
Function							
Business Services, Contracts, Service Quality	Processes, Events, Controls, Products	Functions					

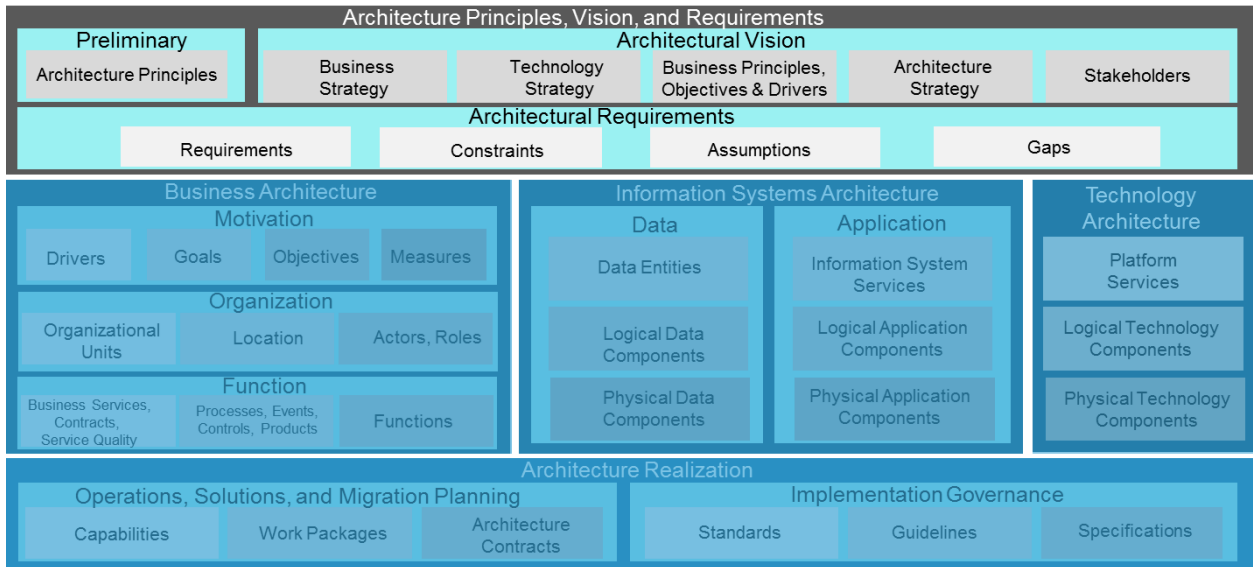| Architecture Realization					
Operations, Solutions, and Migration Planning			Implementation Governance		
Capabilities	Work Packages	Architecture Contracts	Standards	Guidelines	Specifications

Figure 2. Architecture Principles, Vision, and Requirements

Business Analysis Skills for the Architecture Principles, Vision, and Requirements

Three business analysis techniques an IT professional can employ for gaining a more thorough understanding of the Architecture Principles, Vision, and Requirements layer are information gathering techniques, requirements gathering, and conducting a Strengths, Weaknesses, Opportunities, and Threat (SWOT) analysis.

Requirements Gathering

Requirements gathering has traditionally been the role of business analysts. There are numerous techniques for interacting with stakeholders to gather and define requirements. The primary goal is for the IT professional to understand the types of requirements and where they apply within the TOGAF framework. This is not a hard and fast rule, but it helps to understand the different types of requirements and their purpose.

Business

Business requirements determine business needs. They help define new business capabilities and supports short- and long-term goals, objectives, and strategy. The IT professional will focus primarily on articulating business requirements in this TOGAF layer.

Functional

Functional requirements explain how a solution will support business processes and capabilities; they are addressed in the TOGAF Business Architecture layer.

Technical

Technical requirements determine what technology is required to support business solutions aligned with business capabilities. The IT professional typically has the most experience with technical requirements in the TOGAF Technology Architecture layer.

Transitional

The transitional requirements focus on organizational readiness and what is required for transitioning from a current to a future state of the business. Transitional requirements can be defined across the TOGAF framework where business changes will occur.

Information Gathering Techniques

There are three valuable information gathering techniques that enable the IT professional to effectively engage with relevant individuals to acquire knowledge about the business. These are structured interviews, business conversations, and workshops. While this white paper is focusing on the Architecture Principles, Vision, and Requirements and Business Architecture layers of the TOGAF framework, information gathering techniques can be used at any point in articulating the enterprise architecture.

Structured Interviews

Structured interviews are valuable for collecting qualitative information from individuals. They can be used to elicit requirements and provide additional viewpoints about the business. They enable the IT professional to engage in a one-to-one conversation with individuals. Structured interviews typically consist of close-ended questions in an effort to elicit short and explicit answers.

Business Conversations

A business conversation is similar to a structured interview in the sense it provides the IT professional with an opportunity to engage in one-to-one conversations. Business conversations use open-ended questions for the purpose of eliciting opinions, ideas, and different views from interviewees. Business conversations are valuable techniques for understanding the different perspectives about the business between individuals.

Workshops

A workshop is another form of information gathering that focuses on eliciting ideas, opinions, and views from a small group of individuals. They are typically in-person to collect stakeholder inputs for objectives and activities. Workshops require strong facilitation skills, and the nature of the workshop will vary depending on the audience. While the workshop will likely be facilitated by someone other than the IT professional, the IT professional should know when a workshop will be a valuable information gathering exercise.

Strengths, Weaknesses, Opportunities, and Threats (SWOT) Analysis

A SWOT analysis is a valuable analysis tool for determining the current state of the business. The results from a SWOT analysis can help determine gaps between the current and future states of the business as well as for articulating the business requirements that support the architectural vision of the business. Conducting a SWOT analysis helps to establish a picture of the internal and external business environments. A SWOT analysis is also beneficial for identifying business risks.

A SWOT analysis can be conducted for the current state of the business. It defines internal weaknesses such as a lack of business capabilities to support the existing business, external market forces, internal and external opportunities, and internal and external threats. A SWOT analysis can also be conducted once the future state of the business is determined and establishes the premise for conducting a gap analysis that will help to define the architectural principles, priorities, and requirements.

The results of a SWOT analysis provide IT professionals with a holistic view of the internal and external business environment and establish the premise for having more business-focused conversations with stakeholders. The results are also beneficial for determining the motivation, organization, and function in the Business Architecture layer.

TOGAF Business Architecture Layer

This layer considers three primary areas for business motivation, the organization, and the business function. The motivation takes into account the business drivers, goals, objectives, and measures. The organization takes into

account the organizational units, location, actors, and roles. The function takes into account services and quality, processes, events, and functions.
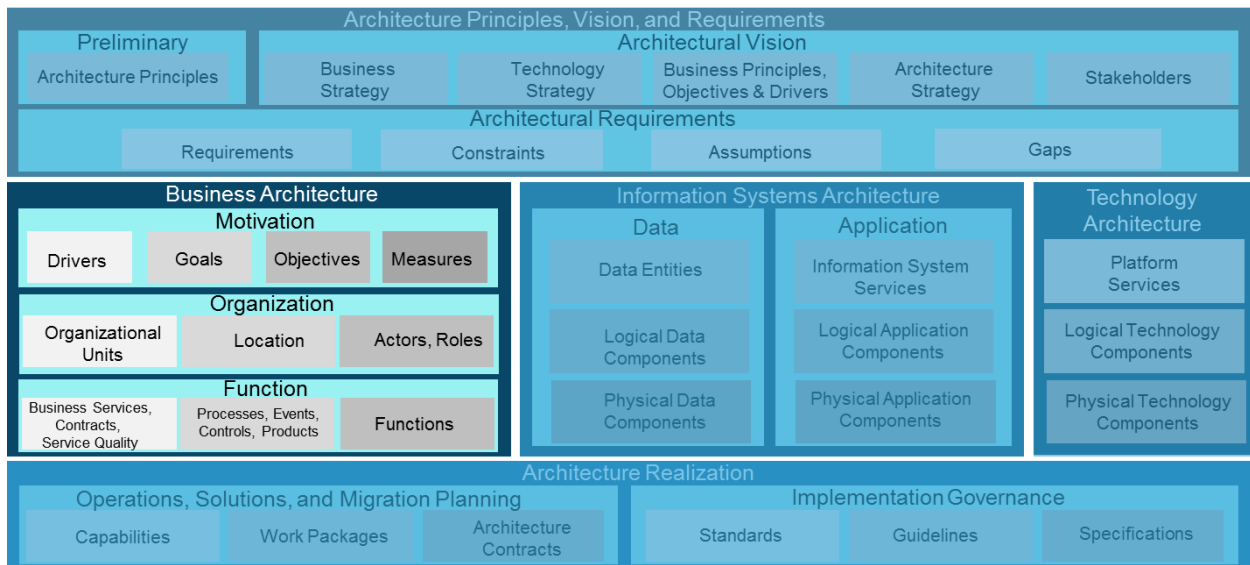

Figure 3. A Closer Look at the Business Architecture Layer

Business Analysis Skills for the Business Architecture Layer

Three business analysis techniques employed for understanding the Business Architecture layer are business process modeling, business system modeling, and stakeholder analysis.

Business Process Modeling

Business process modeling is the activity of defining the processes that support business activities. It relates to the Business Architecture layer for defining processes, events, and controls. Business process modeling can also be used to determine gaps between the current and future states of the business. While business process modeling defines the processes, the next topic addresses business system modeling, which defines the activities. Consequently, these two business analysis modeling techniques enable the IT professional to articulate an understanding of the business architecture.

Business System Modeling

Business system modeling identifies activities associated with the business that generate economic value. It takes into consideration the entire organization and determines the functional and organizational aspects of business architecture. Business system modeling also considers the internal and external views of business functions. Applying business system modeling in the Business Architecture layer enables the business to evaluate the organization and functions.

Stakeholder Analysis

The IT professional will engage with various stakeholders throughout the process of establishing the enterprise architecture. The nature of the stakeholders will be different that those who are involved in the Technology Architecture layer although there may be some crossover. The individuals at the Architecture Principles, Vision, and Requirements and Business Architect layers will consist of business leaders and vested stakeholders. The two may not be necessarily be the same. However, the IT professional can employ a stakeholder analysis to determine who they will engage with in an effort to establish relationships and formulate their communication strategy.

The Stakeholder Power/Interest Grid is a valuable tool for analyzing stakeholders. It provides a picture of stakeholder power/influence and interest/support.
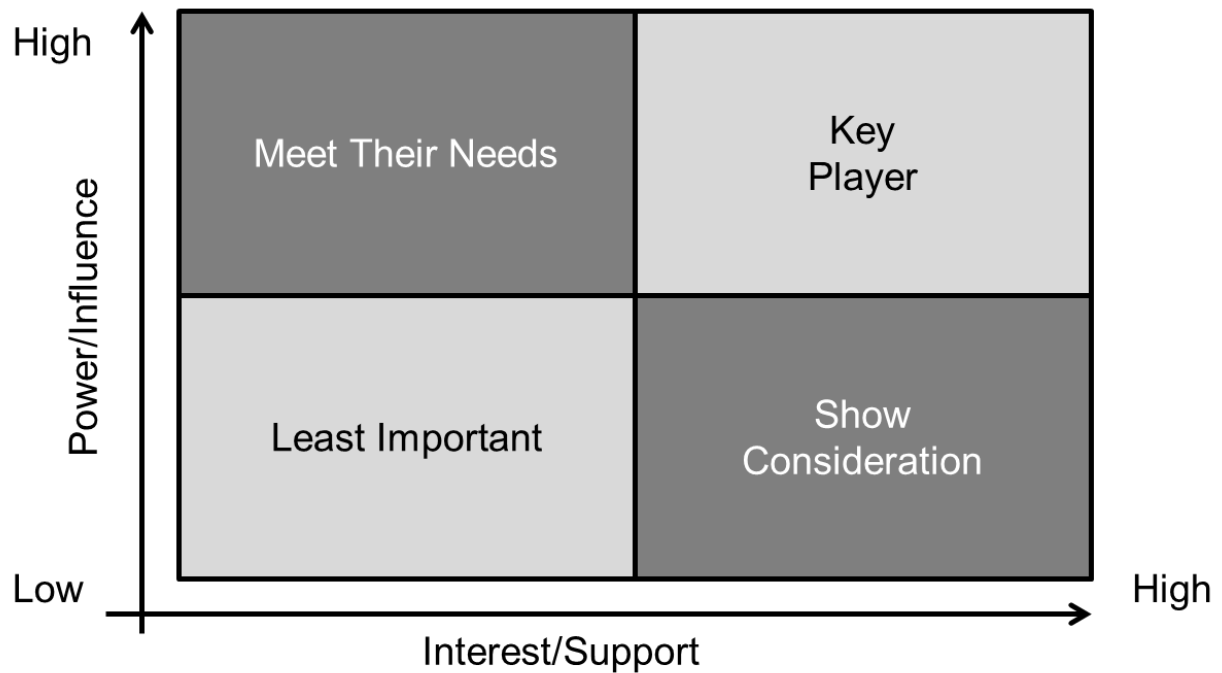
Figure 4. Stakeholder Power/Interest Grid

The intent of the Power/Interest grid is to identify stakeholders and place them in their respective quadrants on the grid. This analysis provides the IT professional with a visual picture of each stakeholder's level of power/influence and interest/support and establishes a foundation for when to involve them and how best to communicate with them. Beware of the fact that stakeholders change over time and across functional business units. This grid is a valuable tool that can be used to identify and analyze stakeholders and for achieving successful communications with individuals in the business.

Conclusion

Business transformation is driving a change in the relationship between IT and the business. Internal and external forces are requiring organizations to be more responsive to customer needs and achieve operational and technological efficiencies. The traditional role of the IT professional has consisted of articulating the technology architecture without considering the overall enterprise architecture.

Organizations increasingly require IT professionals to gain a more thorough understanding of the business to ensure that technology solutions adequately support businesses' requirements, vision, and strategy. The IT professional can acquire new business analysis skills and employ techniques that will aide them in acquiring more knowledge about the business. Linking business analysis skills and techniques with TOGAF methods facilitates an understanding of the business and to achieve IT results that help drive business value.

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TOGAF 9.1 Level 1 and Level 2

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About the Author

James A. DiIanni has over 38 years of experience in the IT industry. He has worked with numerous large IT organizations to implement IT skills frameworks and has firsthand experience in understanding the process, challenges, opportunities, and benefits of doing so. James is an Accredited Skills Framework for the Information Age (SFIA) consultant with SFIA.org. Throughout his career, James has been involved with training and certification as well as the resulting benefits they bring to organizational and professional development.