

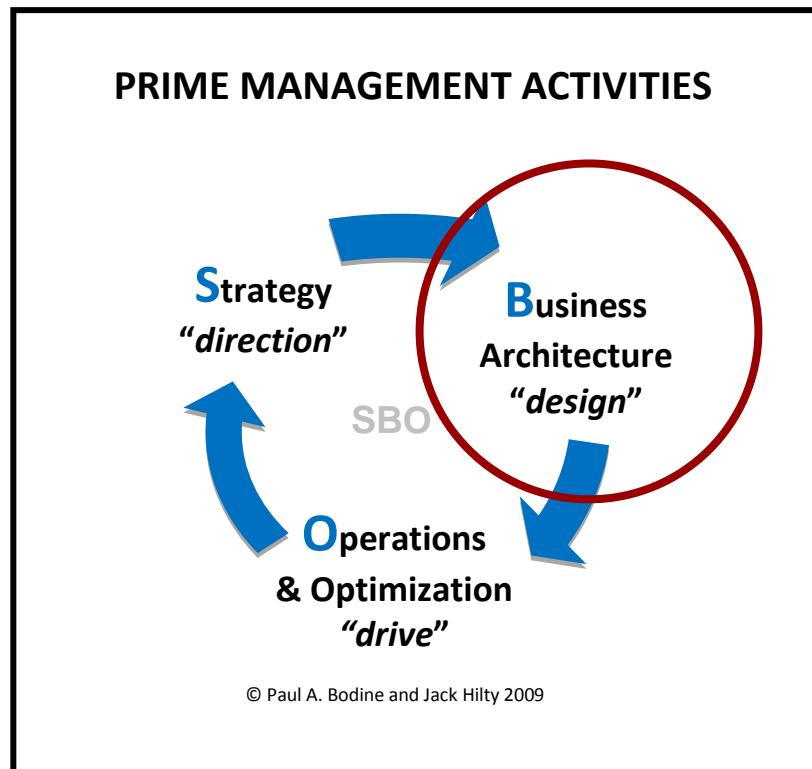
Business Architecture: An Emerging Profession

Edition: April 28, 2009

By Paul Arthur Bodine and Jack Hilty

Edited by: Janice Koerber

Published by: [Business Architects Association Institute](#)™



"Business Architects design, obtain approval, translate and administer the implementation and ongoing improvement of the transformational business initiatives that enable organizations to convert strategy into commerce and prevail in the marketplace."

"Strategists are primarily concerned with the direction of the organization, Business Architects with the design of its dynamic structure, and line managers with driving results."

-- Paul Arthur Bodine

Table of Contents

EXECUTIVE SUMMARY	4
THE STRATEGY, BUSINESS ARCHITECTURE, OPERATIONS AND OPTIMIZATION (SBO™) SERVICES INDUSTRY	6
THE BUSINESS ARCHITECT	9
THE NEED FOR A BUSINESS ARCHITECT	9
WHAT A BUSINESS ARCHITECT IS	9
WHAT THE BUSINESS ARCHITECT DOES	12
EVOLUTION OF BUSINESS ARCHITECTURE	12
HOW THE BUSINESS ARCHITECT WORKS	15
THEIR SCOPE OF CONCERN	16
TOOLS AND STANDARDS	16
THE TYPE OF PERSON WHO IS A GOOD FIT FOR THIS PROFESSION	17
THE BUSINESS ARCHITECT'S EDUCATION	19
PREREQUISITES: MBA DEGREE OR EQUIVALENT, MULTI-DISCIPLINARY WORK EXPERIENCE	19
SPECIALIZED COURSEWORK THROUGH ACCREDITED INSTITUTIONS	19
PRACTICAL CROSS-ORGANIZATIONAL EXPERIENCE SERVING IN A VARIETY OF FUNCTIONAL ROLES	20
CERTIFICATION EXAMINATION	20
CONTINUING EDUCATION	20
ACCREDITED EDUCATIONAL PROGRAMS	20
THE BUSINESS ARCHITECT IN THE ORGANIZATION	21
ACTIVITIES	21
BUSINESS ARCHITECTURE IMPROVEMENT LIFECYCLE™	21
IMPLEMENTING A BUSINESS ARCHITECTURE GROUP	22
THE BUSINESS ARCHITECTS' PROFESSION	25
A GROWING PROFESSION	25
PROFESSIONAL CERTIFICATION	26
THE ROLE OF CORPORATIONS	26
THE ROLE OF UNIVERSITIES	27
THE ROLE OF PROFESSIONAL ASSOCIATIONS	28
THE ROLE OF MANAGEMENT CONSULTING FIRMS	29
BUSINESS ARCHITECTURE TODAY	30
ABOUT THE AUTHORS	30
APPENDIX 1: THE BUSINESS ARCHITECTS ASSOCIATION® ("BAA™")	31
ABOUT THE BAA™ (WWW.BUSINESSARCHITECTS.ORG)	31
BENEFIT TO CORPORATE EXECUTIVES, PRACTICING BUSINESS ARCHITECTS, CORPORATIONS, GOVERNMENTS AND INDUSTRY ASSOCIATIONS	31
BAA™ PROGRAMS	32
BAA™ BODY OF KNOWLEDGE	32
BAA™ CODE OF ETHICS	32
APPENDIX 2: THE NATURE OF PROFESSIONS	33
GUIDING BODIES	33
JURISDICTION	34
LICENSURE AND PROFESSIONAL CERTIFICATION IN THE U.S.	34
BODY OF KNOWLEDGE	35
CODE OF ETHICS	35

APPENDIX 3: COMPARATIVE EXAMPLE: U.S. BUILDING ARCHITECT’S PROFESSION.....	36
BUILDING ARCHITECTURE AS PARADIGM.....	36
SIMILARITIES AND DIFFERENCES - BUILDING AND BUSINESS ARCHITECTURE	40
ENGAGEMENT PROCESSES COMPARED.....	41

EXECUTIVE SUMMARY

Business Architecture is an important new corporate activity. Organizations like Allstate, Wells Fargo, Pepsico, HSBC, W.W.Grainger, Blue Cross Blue Shield and United Air Lines have taken the lead and are already piloting Business Architecture Groups.

Business Architecture is performed by cross-organizational generalists who possess professional skills for transforming corporate strategy into business designs that enable corporations to increase market share, profit margins and flexibility, while reducing risk.

Their unique skills include:

- Designing dynamic, flexible new models for businesses that enable them to adjust and thrive in constantly changing competitive environments.
- Preparing business cases that provide Executive Management with the information they need to make wise decisions.
- Incorporating the insights of customers, line employees and managers to ensure their unique needs are accommodated.
- Engaging subject matter experts throughout the organization in the solution process.
- Coordinating and sequencing solutions to remove conflicts.
- Defining metrics that provide the data necessary to make improved decisions in the future.
- Generating necessary documentation, packaging and translating it into terms each audience can understand and embrace.

Business Architecture skills are obtained through specialized training and real-world experience, magnified by a broad network of skilled professionals accessed through active participation in professional industry associations like the Business Architects Association®.

In order to be effective, Business Architecture practitioners must enjoy open relationships with an organization's Executive Management, line managers, front line employees, subject matter experts and consultants, enabling them to get to and solve cross-organizational issues early and prevent them from becoming caught up in debates among functional departments.

Those performing Business Architecture activities provide direct support to Executive Management by making them aware of emerging issues and trends, providing training in new management methodologies, and researching opportunities and concerns as they arise. They also work to ensure all elements of the corporate strategy are implemented properly.

There is universal agreement on the value a Business Architecture program brings to an organization, the need to include experts from all areas of the organization and the importance of direct sponsorship from Executive Management.

Failure to maintain an up-to-date business architecture can result in loss of agility and competitiveness, destabilization and business failure.

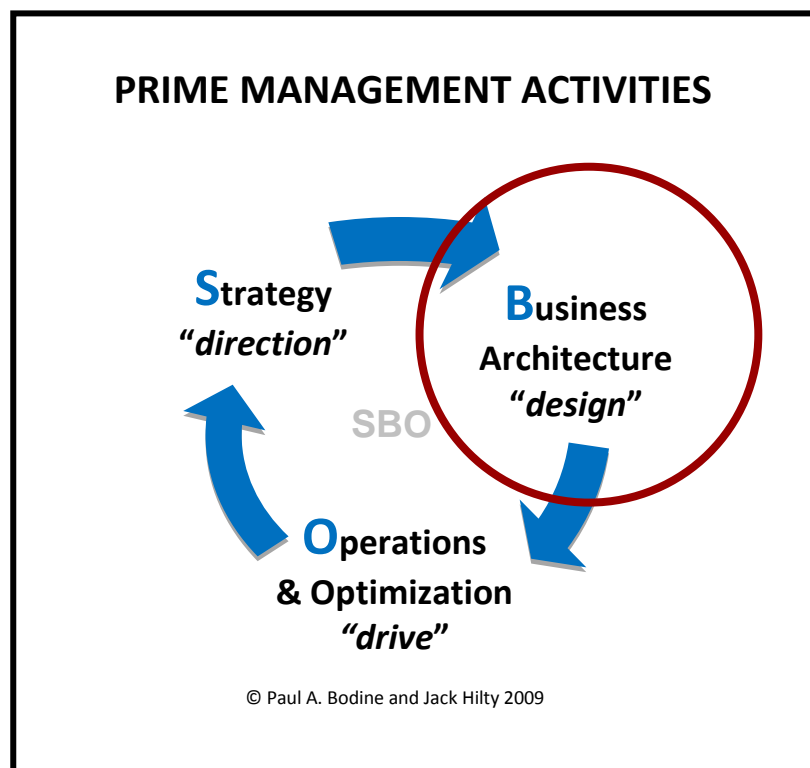
The Strategy, Business Architecture, Operations and Optimization (SBO™) Services Industry

First, it is important to define the Strategy, Business Architecture, and Operations & Optimization (SBO™) services industry. It encompasses consultants, consulting firms and in-house practitioners who put business school theory into practice and apply specialized tools to improving today's dynamic, constantly changing organizations of all sizes--from entrepreneurial startups to global conglomerates--in virtually every industry: corporate, academic and government.

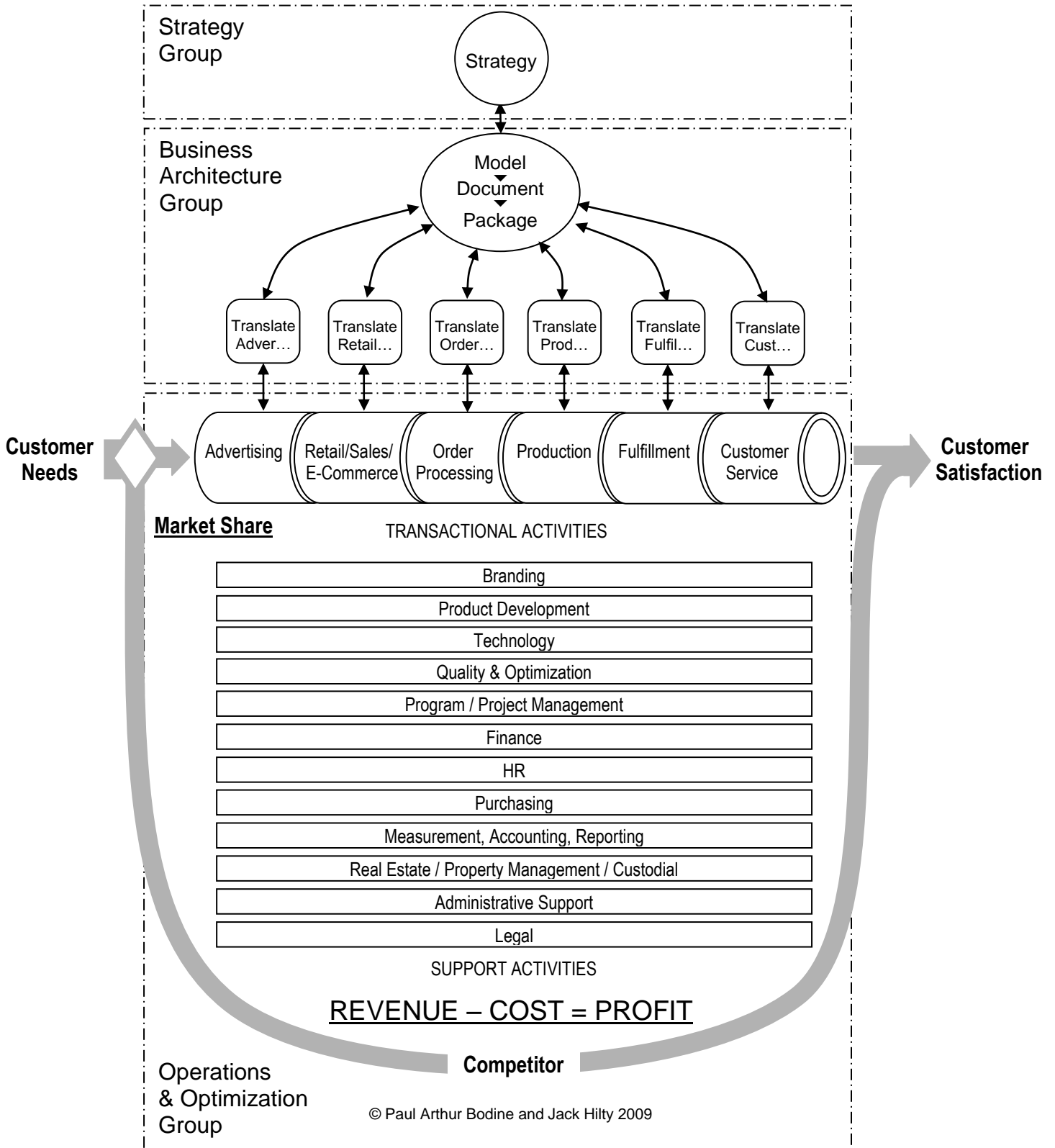
SBO™ industry professionals are generally categorized into one of the following disciplines:

- Strategy: Deciding the organization's direction
- Business Architecture: Determining the organization's design
- Operations & Optimization: Driving the organization's profitability

These correspond to the three segments of Corporate Management:



BUSINESS ARCHITECTURE – MANAGEMENT SEGMENTS



SBO™ disciplines were once the exclusive domain of business schools like Northwestern, Harvard, Wharton and the University of Chicago, and management consulting firms like McKinsey, Boston Consulting Group, Bain and Booz Allen Hamilton, whose specialized tools and industry knowledge enabled them to provide significant contributions to the client organizations they served. While they continue in this same capacity today, the world in which they operate is evolving, as evidenced by the following:

- The Internet has provided greater access to current, relevant data.
- Advances in computer technology have spawned many new tools capable of evaluating organizations and formulating recommendations for possible solutions in ways that were not possible in the past.
- Highly sophisticated management tools have been developed, providing greater ability to successfully and collaboratively manage capabilities at a much greater degree of complexity.
- Organizations once thought too small for traditional management consulting firms to service profitably have emerged as viable candidates for SBO™ services.
- The demand for highly developed expertise has resulted in increased specialization within the SBO™ industry. As a consequence, the individual disciplines have, of necessity, become more sophisticated.
- Competition within the industry has increased and become more fractured, as individuals with varying levels of expertise and competence present themselves as experts and vie for potential engagements and positions.
- Due to rapidly changing business environments and the new connectivity of the digital economy, issues that were traditionally worked around - culture, efficiency, coordination, etc. - now must, and can, be worked through.

To meet the needs of the rapidly changing global economy and the organizations that will successfully make the transition and thrive in the future, the SBO™ is coalescing into a coherent industry offering a high level of professionalism, sophisticated tools, and effective support organizations led by luminaries from the same educational and management consulting firms that have traditionally supported SBO™ disciplines.

Existing professional support organizations are forming alliances to identify gaps and eliminate overlaps, and redefining their roles in the industry.

Practitioners are cataloguing their skills and experience and universities and professional associations are developing comprehensive educational programs to certify professionals so that clients can identify competent practitioners and be confident in their abilities.

The Business Architect

The Need for a Business Architect

The following scenarios illustrate important situations that call for the talents of a Business Architecture practitioner:

Scenario I

“As CEO, you have a great strategy from a top consulting firm and everything your organization is doing is aligned with the strategy, however nothing seems to be working properly. There is discord among your employees, the organization is not achieving its goals and is losing ground to competitors, and access to capital is becoming strained.”

Scenario II

“Your organization has purchased a competitor and directed the IT team to convert the acquired company’s branches onto your technology platform, resulting in widely varying cost and time estimates, requests to change the way the branches do business and potential marketing and legal consequences regarding customer offerings.”

Scenario III

“Your organization wants to implement a new ERP system. You have learned that you must decide between costly customizations to support your existing way of doing business, adopting its ‘out-of-the-box’ functionality which may require changes in some of the operations of the organization, and implementing and maintaining a hybrid solution.”

Scenario IV

“Competitors are entering your marketplace and eating into your market share.”

Each of the above scenarios is typical within organizations, and they do not occur in a vacuum. Generally there are other initiatives competing for precious time, attention, and funding. In a static, unchanging global environment, with unfettered access to pertinent information, an unlimited budget and unconstrained time frames, the decisions and management of resulting efforts would be easy. However, this is the real world, and it will take a broad view of the organization, a thorough understanding of the activities and concerns of the functional departments (e.g., sales, marketing, manufacturing, HR, IT), and professional business judgment.

What a Business Architect is

A Business Architect is the member of the SBO™ team whose primary responsibility is to take the “big picture” future view of the structure of the organization.

A Business Architect is generally responsible for both ongoing and project-based work, and provides services in important situations and strategic implementation.

“Business Architecture: An Emerging Profession”

© Paul Arthur Bodine and Jack Hilty April 28, 2009; earlier editions © 2008. All rights reserved.

Ongoing Work: Business Architects perform comprehensive high-level scans of all of the factors that may affect organizational design to assess organizational health, identify incongruent structure or content and uncover valuable opportunities including the economy, political trends, competitive marketplace, and customer preferences. To assist in this effort, the Business Architect solicits input from the strategy and market research groups, vendors, line managers, subject matter experts, consultants, and line employees. Business Architects advise Executive Management and keep them informed of new concepts, trends and ways of thinking that may affect decision-making.

Project Work: Changes in strategy, issues and opportunities discovered during scans, and good ideas bubbling up from within the organization are converted into business architecture initiatives executed by operations and line managers and passed to the project management group for implementation.

Strategic Middleman: The Business Architecture Group acts as the middleman between the strategy team and the functional departments.

Business Architecture Group Strategic Mission

The Business Architecture Group partners with appropriate experts to develop options for bringing the corporate strategy to life, securing Executive Management approval, presenting necessary changes to the right audiences in the right way to achieve adoption, and administering implementation to ensure the complete solution is correctly implemented and properly modified to accommodate local conditions.

Diagram A

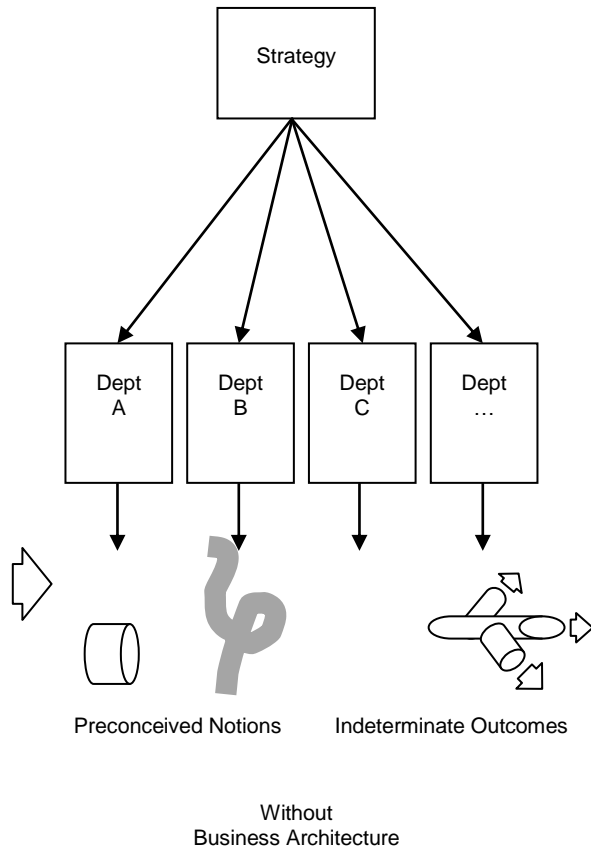
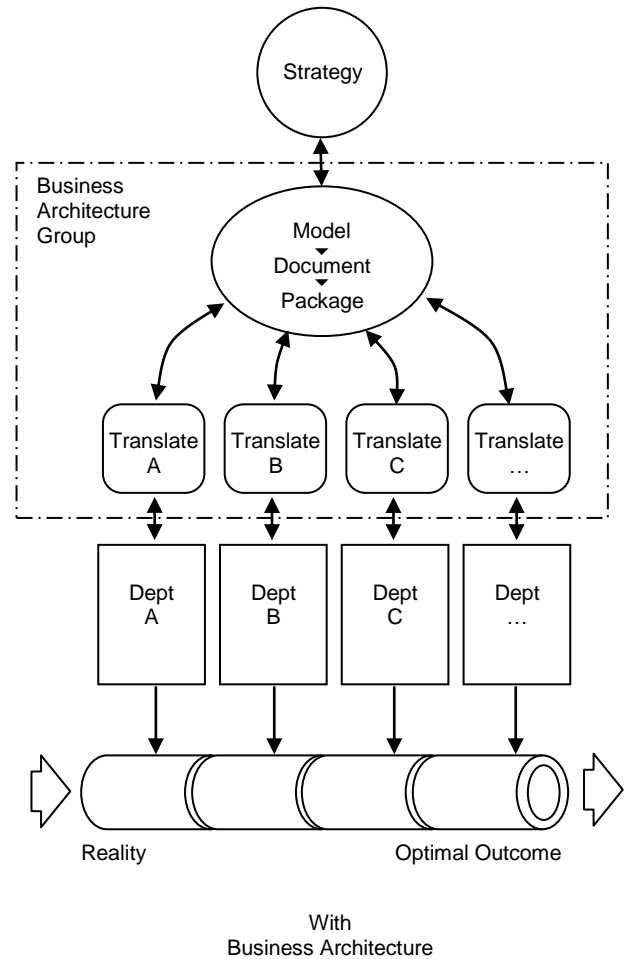


Diagram B



© Paul Arthur Bodine and Jack Hilty 2008

Diagram A illustrates an environment without a Business Architect. Note the lines from the Strategy show only one way communication resulting in an inconsistent interpretation by the individual departments and lack of coordinated response, often resulting in conflicting and incongruent solutions.

Diagram B illustrates an environment with the participation of a Business Architect. The strategy message is translated into actionable initiatives for each department and coordinated to ensure a cohesive plan. Arrows indicate two-way communication in all directions, representative of continuous feedback, re-evaluation, and realignment necessitated by local conditions. The deliverables are much more likely to result in improvements to both the corporate strategy and its implementation.

What the Business Architect Does

With the help of Subject Matter Experts (SME), the Business Architect converts high-level strategy and business needs of the organization into holistically complete, coordinated, sequenced business models (the best of which become roadmaps for new profit and growth) that are broken down into the project sets necessary for implementation.

The Business Architect researches the feasibility of new initiatives, assesses emerging opportunities, leads pilot studies and addresses organizational sustainability, risks and challenges.

The Business Architect provides a conduit between corporate-wide strategy, innovations and best practices, and the functional departments, and maintains the organizations global business rules.

The Business Architect prepares and presents business cases for high-level initiatives to Executive Management for approval, funding, resource allocation and prioritization.

The Business Architect facilitates cross-organizational knowledge-sharing forums among Subject Matter Experts and mentors new team members.

Evolution of Business Architecture

The origin of the term “Business Architect” is derived from the longer history of the building architect whose competencies in design, communication and project oversight are recognized by the general population. Throughout the years, a business leader who launches a successful new company or designs a better way of going to market or accomplishing work is often referred to in business publications as the “architect of the business.”

Responsibility for the cross-organizational design of the business as a whole, the work of the Business Architect, has historically fallen to the CEO or their assignee, supported by generalist management consulting firms whose teams of MBAs work with corporate managers to transform strategy into new business configurations using the newest tools.

Important advances in this area borrowed from the operations discipline came in 1993 in the form of Michael Hammer and James Champy’s book Reengineering the Corporationⁱⁱ, which introduced tools for mapping and optimizing business activities using process modeling. The Balanced Scorecardⁱⁱⁱ developed by Robert Kaplan and David Norton at about the same time enabled the business to measure overall corporate success against goals on qualitative as well as quantitative dimensions.

These tools, together with the ability to quickly test sophisticated business scenarios against great volumes of data (made possible by the broad availability of electronic spreadsheets operating on fast, inexpensive personal computers) enabled practitioners to “build companies on paper”, running the financial scenarios (models) and sensitivity analyses required to identify business configurations that produced the highest NPV^{iv} with the lowest risk.

The arrival of Internet technologies like email, instant messaging and online data repositories in the mid-1990s opened up tremendous flexibilities in the ways co-workers could collaborate, while the new ability of buyers and sellers to interact in virtual space and transact online changed the traditional structure of businesses.

This allowed new flexibility in designing and structuring businesses, and introduced new business architectures: e.g., peer-to-peer, mass customization and swarming.

By the late 1990s, MBAs with advanced skills in Internet technologies began developing live business models for e-commerce websites in real-time. They used the development tools to both represent and build the business at the same time. The model became the business, and thousands were launched, allowing companies to access vast volumes of data and respond rapidly to changing market conditions.

Remaining competitive in the new marketplace required businesses to undergo nearly constant change, a situation many organizations were unfamiliar and uncomfortable with and ill-equipped to handle.

Enter the Business Architect.

Although the term “Architect” had long been associated with designers, the term “Business Architect” first gained traction with the 2001-2002 launch of DePaul University’s Business Architecting course taught by Paul A. Bodine within its MBA program in Chicago. A Google search on “Business Architect” at the time returned just 12 results.

This was closely followed in 2003 by the launch of the first professional association supporting Business Architects, the [Business Architects Association®](#), which confers the Certified Business Architect (CBA)^{®v} certification. By 2006, several consulting firms had begun advertising Business Architect expertise. A Google search on “Business Architect” in 2009 returns over 1 million listings.

This is just the beginning of a valuable and rapidly expanding profession. Today’s Business Architects take a holistic view of the complete business representing all interests and engaging all expertise. They see the business organization as a constantly changing, dynamic organism that balances central planning with individual initiative to achieve its mission through the articulate implementation of its corporate strategy.

The IT Department's Acute Needs

IT departments' need for Business Architecture services is particularly acute, causing many to take the lead in calling for the formation of Business Architecture Groups.

In the information technology world, the arrival of practical computers in the 1950s led to the creation of resource planning programs used to manage and optimize manufacturing processes in the 1960s. As the quality and scope of these programs matured in the 1970s, software firms began to see the opportunity for further expansion of these programs to encompass associated nonmanufacturing business activities like purchasing, billing and order fulfillment.

The 1980s saw the integrated ERP system expanded to the entire organization, and the rise of an advanced technologist role, the Enterprise Architect. The Enterprise Architect was charged with designing the corporation's physical technology infrastructure and setting standards for computer coding languages and communication protocols to ensure the organization's computer systems would be able to communicate with each other.

These ERP and other organization-wide systems require gathering and modeling information from throughout the organization. However, many of the technologist's tools and methodologies were developed without full involvement of other parts of the organization, resulting in a somewhat static, insular view of the business and difficulty in effectively understanding and providing for their needs at a pace they needed.

The arrival of the Internet greatly increased the organization's ability to quickly adapt to market conditions and put pressure on technology departments to develop volumes of technology-enabled capabilities quickly. This increased the need for tight integration with all parts of the organization, further exacerbating the problem.

As technology has matured, from mainframe--to timeshare--to distributed computing--to peer-to-peer--to web services accessed through cloud computing, users are demanding direct online support as they are unwilling to tolerate a website they can't master without training. This has forced technology departments to abandon the monolithic approach of dictating standards and compensating for poor user interfaces with enforced training. Now user communities demand the ability to interact directly with the data and technology layers, enabling them to design and structure their websites themselves.

By 2004, IT departments were clamoring for the services of those who could provide them with comprehensive models that capture and communicate the dynamics and trajectory of the constantly changing business from which they could scope and plan future technology needs and engage the eager participation of other parts of the business. This is the work of the Business Architect.

The IT departments of numerous leading organizations have stepped ahead and formed Business Architecture Groups within their companies from their own personnel, many finding a manager on the business side to sponsor them as a way of beginning to engender participation and acceptance from the organization as a whole. However, without cross-organizational business experience and the relationships within the departments necessary to understand their unique priorities and concerns, these groups will find it difficult to achieve success.

These groups will need to add members from other departments of the organization who speak the department's language, understand them culturally, and can correctly represent their concerns, they will begin to earn the trust of other managers, have access to needed subject matter experts, attract cross-organizational sponsorship from Executive Management and deliver the coordinated structural information needed by all of the departments, not just IT.

How the Business Architect Works

The specific responsibilities of a Business Architect will vary depending on the organizational environment, but the following is an example of a typical work pattern.

The Business Architect receives an update to the corporate strategy. The Business Architect reviews it, identifies necessary changes and meets with each part of the organization that will be impacted by these changes to assess the scope and scale of the impact, determine what expertise will be necessary to design and implement the changes, develop working options with associated cost and time estimates, identify competing initiatives, document challenges and opportunities and present findings to the strategy team.

The Business Architect works with the Strategy team to make adjustments and determine the strategic importance relative to competing initiatives. The Business Architect shares the revised strategy and prioritization with the departments for final adjustments and signoff, and coordinates an end-state model, key success factors and specific metrics and success goals.

This model is reviewed with the strategy team and each department and signed off by the strategy team.

In consultation with each department's subject matter experts, an individual view of the model is packaged into a set of projects for each department that includes all of the information they need to implement their portion, and the sequencing and coordination information necessary to mesh with the efforts of the other parts of the organization.

The complete set of coordinated documents is issued by the Business Architect to the strategy team and all participating departments, allowing each to understand their own work as well as the work of other parts of the organization. With final signoff, the

documents are turned over to the project management team for implementation, and to the change management and training teams, who will ensure the organization is ready to operate and support the adjusted organization when the improvements are implemented.

The Business Architect administers the implementation by remaining available to interpret and clarify documents, facilitating communication, and verifying progress and compliance.

The Business Architect, at the completion of the improvements, updates the documents which are then stored and made available to other teams as baseline documents from which to design future improvements.

Their Scope of Concern

The Business Architect takes a holistic interest in all aspects of the organization, beginning their examinations from the 40,000 foot view of the organization within the context of its marketplace and then drilling down into the details at a level granular enough to successfully direct and coordinate the implementation work of the various parts of the organization.

Business Architects generally do not participate in initiatives that are very narrow in focus or whose impact does not extend beyond an individual functional area.

Tools and Standards

The tools employed by Business Architects can be divided into six primary areas:

- Research: Google, subscriptions to Gartner, Harvard Business Review, ...
- Analysis: Excel, Cost/Benefit, ROI, ROA, NPV^{vi} for larger initiatives, numerous tools for validating strategy, ...
- Modeling: ranges from simple drawing tools like Word and Visio to complex tools like MetaStorm's ProVision, requiring seat licenses and training...
- Communication: PowerPoint, Word, town hall meetings, webcasts, ...
- Administration: MS Project, Outlook, ...
- Repository: web-based file repositories and databases, specialized business rules repositories, ...

Standards are divided into three areas:

- Standards of Professional Practice: A set of guidelines issued by a professional association describing how a professional Business Architect performs their work.
- Reference Standards: Issued by professional associations and testing organizations governing the components and implementation of projects, which are quoted by Business Architects in their documents.
- Tool Standards: Used to ensure interoperability.

The Type of Person who is a Good Fit for this Profession

The work of the Business Architect requires not only a significant level of functional expertise and industry knowledge but also very specific personality traits and interpersonal skills that enable them to fit in and achieve success.

The type of person who excels as a Business Architect is a mechanically-minded person who can “read” very complex systems - immediately and intuitively understand how they work, and figure out how to improve their design. They must be comfortable in constantly changing environments, implementing changes without interrupting the flow of business.

They possess the ability to look at problems from the proverbial “40,000 feet” and drill progressively down to the granular details. This is crucial, as it is a view that is unique and often unseen, yet it reveals potential problems and opportunities that are not obvious from a more narrow view.

They are able to discern the cross-organizational impacts of actions (or inaction) on other parts of the organization and its supply chain in the present and the future, and develop solution options that mitigate negative impacts while delivering the benefits.

They must be able to visualize the desired end-state, work backward to deconstruct the solution into its component parts and then prepare a set of implementation documents that implementation teams can follow to achieve the desired end state. They have an inquisitive nature and the tenacity to trace symptoms to problems to the root causes and contributing factors of business problems.

A good Business Architect is an empiricist possessing the ability to sift through large volumes of data, identify critical variables and frame solutions in terms of business benefits supported by relevant financial analysis and accurate cost/benefit estimates.

The Business Architect has an entrepreneurial nature, staying on top of current tools and trends, willing to challenge the status quo and press for solutions that enable the organization to quickly gain market share and increase profit margins. They must be well-versed in directing work of teams, optimizing resources and managing projects.

The Business Architect is a people person who is able to quickly and effortlessly build friendships and strategic relationships with a great variety of people. They are empathetic listeners who pick up on nuances in language and culture.

Often playing the “middleman,” the Business Architect possesses excellent communication, facilitation and summarization skills, being able to translate concepts into terms understandable by everyone. They display great political acumen and emotional intelligence, remain cool in a crisis and manage negotiations toward practical solutions.

The Business Architect's Education

Business Architects are generalists by definition, possessing a working knowledge of the terminology, tools, interests and concerns of each part of the organization.

Their education must be focused on providing a holistic understanding of organizations, with an emphasis on solving real-world business cases while receiving constructive feedback from professional practitioners. Their education programs must be designed by academic scholars working with practicing Business Architects, delivering peer-approved content from the profession's Body of Knowledge.

Business Architecture training is beneficial to a variety of roles: Business Architects, middle and senior managers, management consultants, business modeling specialists and entrepreneurs.

Prerequisites: MBA Degree or Equivalent, Multi-Disciplinary Work Experience

The students best prepared to enter a Business Architecture program are those who possess a comprehensive understanding of the functioning of a business and techniques for gaining strategic advantage in the competitive marketplace and are practiced in empirical decision support methodologies.

The best students have managed employees and projects, served as an analyst working within a variety of functional areas – e.g., financial analyst, marketing analyst, and supply chain analyst. They have sales experience working face-to-face with customers where they have learned to build relationships quickly and communicate persuasively. They also have hands-on exposure to writing computer code and Internet scripts, which provide them with a granular understanding of the capabilities inherent in information technologies.

Specialized Coursework through Accredited Institutions

The content of a specialized Business Architecture regimen should include:

Introduction to Business Architecture

An overview of the Business Architecture profession, the history and nature of the profession, how it fits among associated professions, a survey of applicable theory, and an illustration of the beneficial impact the Business Architect can have in an organization and the level of care and responsibility required from its practitioners.

Business Modeling and Solution Development

This design-based coursework is based on real-world case studies involving complex challenges and introduce new business strategies. It requires students to gather information, analyze it, design a practical solution and form an

implementation plan that takes into account real-world constraints. The students' deliverables include a comprehensive, coordinated set of business, operational, organizational and financial models, business rules, timelines, resource requirements, and communication and training plans designed to mitigate constraints and achieve the strategy.

Corporate Governance Modeling

A well designed solution is no assurance of success for the organization. Many social, cultural, political, training and organizational readiness factors have a much greater influence on success. The content of this coursework would explore leadership methodologies appropriate for corporations whose managers must cooperate and coordinate across supply chain partner and hierarchical levels. A governance model made up of business rules is created, defining the culture, personal manner, relationships, standards, benefits and incentives necessary to turn competing interests into a collectively motivated team.

Practical Cross-Organizational Experience Serving in a Variety of Functional Roles

Business Architects, in order to be effective, must understand the terminology, interests and concerns of the various departments in an organization. This is best accomplished through direct personal experience serving in a variety of analyst and line roles within different functional areas.

Certification Examination

A certification examination will provide employers with an assurance of the depth of education of the Business Architect, as well as the consistency of content across different educational programs.

Continuing Education

A continuing education program is vital to ensuring practitioners not only keep up-to-speed with current developments in the field but also regularly deepen their skillsets.

Accredited Educational Programs

The Business Architects Association® has developed an educational program that meets these requirements, establishing baseline credentials for professional practitioners in whom Executive Management can have confidence. See Appendix 1 for more information.

The Business Architect in the Organization

Activities

There are two primary activities a Business Architect typically undertakes within an organization:

Scan, Inform and Advise

Business Architects perform comprehensive high-level scans of all of the factors that may affect organizational design including the economy, political trends, competitive marketplace and customer preferences with the help of the strategy and market research groups, the organization and the supply chain with the help of operations, line managers, subject matter experts, consultants and rubber-meets-the-road employees to assess organizational health, identify incongruencies and uncover valuable opportunities.

Business Architects advise Executive Management and keep them informed of new concepts, trends and ways of thinking that may affect decision-making.

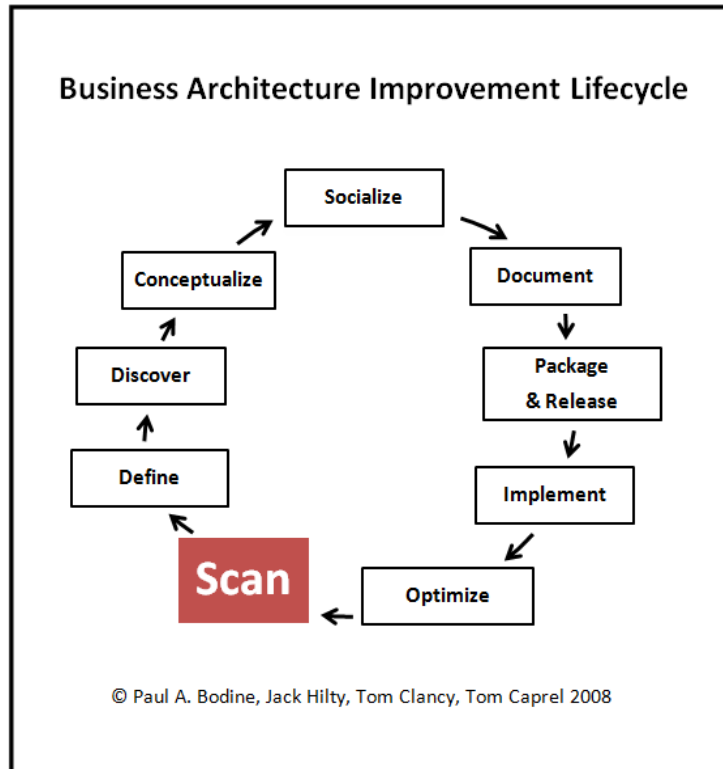
Business Architects provide mediation and management support for important and developing situations. An experienced Business Architect has the skills, knowledge, relationships, authority and judgment to analyze the factors internal and external to an important situation, pull together appropriate experts and information, craft a holistically complete solution, secure Executive Management's approval, present the recommendations for changes necessary to accomplish the solution to the right audiences, in the right way and in a format that is understandable, thoughtful, and actionable, and then administer the implementation to ensure it is comprehensively implemented and properly modified to accommodate all local conditions.

Engagements

Changes in strategy, issues and opportunities discovered during scans and good ideas bubbling up from within the organization are converted into business architecture engagements that result in the creation of initiatives executed by operations and line managers, and the definition of project sets passed to the project management group for implementation.

Business Architecture Improvement Lifecycle™

Business Architects often use a lifecycle approach to identify and implement transformational opportunities for improving an organization's design. Business Architects recognize that the competitive landscape in which a business competes is constantly changing, and that the organization must continuously adapt to remain competitive. The lifecycle process ensures the organization takes the necessary steps to remain competitive. The following is an example:



Implementing a Business Architecture Group

The chief executive often performs the work of the Business Architect within small companies. The chief executive of mid-sized companies may rely on one or several persons on staff to provide them with Business Architecture support supplemented by external management consulting firms.

Large organizations are beginning to form Business Architecture Groups as a way of providing comprehensive services to their organizations. These groups should be comprised of a combination of skilled consultants and employees who bring with them a granular knowledge of the needs and concerns of their functional areas, as well as the relationships necessary to get things done.

These groups can be assembled quickly and effectively. Business Architecture Groups should adhere to the following:

Reporting

The speed of change in competitive marketplaces is accelerating, complexity is increasing and the tolerance for errors is getting smaller. Business Architects must respond quickly and comprehensively to these changes, often calling on subject

matter experts from throughout the organization to develop solutions that require immediate corporation-wide implementation.

The Business Architecture Group must have access to executive authority (typically the CEO, COO or Executive Vice President) to call on these experts and implement these solutions.

Governance

The Business Architecture Group is ideally governed by an independent Business Architecture Governance Board comprised of representatives of various parts of the organization. The Board should meet on a regular basis, review the status report of the Business Architecture Group and discuss the program, how it can be improved, challenges and how they can assist. A Business Architecture Governance Board substantially reduces the time commitment of the executive to which the Business Architecture Group reports, while engaging the functional areas more directly.

Access to Subject Matter Experts

The Business Architecture Group must have reasonable access to managers and subject matter experts throughout the organization. In exchange, the Business Architecture Group must respect their time.

Charter

The Business Architecture Group must operate under its own charter, which spells out the work they are charged with, the scope of their activities and how their activities will be measured.

Composition

The Business Architecture Group should be comprised of experts from a variety of areas of the organization (Domain Specialists) – e.g., marketing, strategy, finance, operations, IT, and with a variety of applicable skills (Skills Specialists) – e.g., process modeling, financial modeling, dashboard design, meeting facilitation. Group members may be a mix of employees and consultants and may function as full-time members of the group, or may work primarily in other roles, and participate in the group only when their particular knowledge or expertise is needed. Members should be selected to participate in the group based not only on their domain knowledge or specialized skill, but also on their ability to adopt a broad perspective and collaborate with others toward a common goal. At least some should be trained in Business Architecture and actively participate in professional Business Architecture organizations.

Recruiting Right

Being the right fit is the most important factor for the success of a Business Architect, followed by emotional intelligence, skills, respected relationships throughout the organization and a formalized education in Business Architecture, which can be completed subsequent to hiring.

There are inherent advantages to recruiting Business Architects from within, including their established relationships within the organization and familiarity with the culture, strategy, and ongoing initiatives. Domain Specialists ideally are recruited from the ranks of the functional areas and business units in which they will reside.

Good sources for Business Architects:

- Business Architecture professional organizations
- Business Architecture educational programs
- Management consulting firms
- MBA and Executive MBA programs

First 100 Days

The following checklist will help to set the game plan for the first 100 days when launching a new Business Architecture Group:

- Select Reporting Executive Manager
- Select the Business Architecture Group leader, titled Chief Business Architect
- Meet with Reporting Executive Manager
- Draft charter
- Assemble Business Architecture Governance Board to finalize charter/recruit team members from the departments
- Perform first scan
- Report results and define engagements
- Recruit remainder of Business Architecture Group
- Begin regular Business Architecture Governance Board meetings
- Alternate engagements and scans until the program is robust

The Business Architects' Profession

A Growing Profession

While the work of the Business Architect has been performed for as long as businesses have existed, the profession of Business Architecture is very new. It was born in response to the need for a new set of tools and skills to meet the increasing challenges presented by today's speed, complexity, sophistication, competition and low tolerance for error.

The profession formally began in 2003 with the launch of the Business Architects Association® (BAA™), the first professional association recognizing Business Architects. It presented a working definition of a Business Architect, defined a Body of Knowledge, which every professional Business Architect should know and set the qualifications for a Business Architect by launching its Certified Business Architect (CBA)® certification conferred on individuals who have completed an accredited university-level Business Architecture program. (See Appendix 1 for more information about the Business Architects Association®.)

Additional professional organizations are entering this space.

Governing Bodies

The current governing bodies include:

Professional Body: The Business Architects Association® is a professional body serving the Business Architecture community. It promotes the profession, encourages employment of Business Architects and, through its Institute, is working to advance the profession by stimulating and publishing research. It is working to protect the public by increasing the academic rigor necessary to achieve certification and pursuing breaches of professional practice and ethics.

Regulatory Body: The Business Architects Association® sets the qualifications for its membership and certification, and verifies compliance. It accredits the educational institutions upon whose graduates the Certified Business Architect (CBA)® certificate is conferred. The BAA™'s Institute determines the Body of Knowledge required for courses accredited for the BAA™'s certification.

Learned Body: DePaul University is the first MBA-level Business Architecture program; others are expected to follow soon.

Standards Bodies: There are three types of standards bodies for the Business Architecture profession.

Standards of Professional Practice: The Business Architects Association® has issued a comprehensive set of Standards of Professional Practice intended to act as guidelines governing how practitioners conduct their work and to set the expectations of their customers and employers.

Reference Standards: Business Architects access a very broad set of reference standards depending on the issue being addressed. These standards range from Generally Accepted Accounting Principles (GAAP) to the Occupational Safety and Health Act (OSHA).

Tool Standards: Various. E.g., The Association of Business Process Management Professionals (ABPMP) has issued its Guide to the Business Process Management Common Body of Knowledge (BPM CBOK™), which establishes standards for Business Process Management. The Object Modeling Group (OMG™) has formed a working group to explore whether it makes sense for OMG™ to establish a Business Architecture standards development group within their organization.

Body of Knowledge

Specified Bodies of Knowledge for the profession are contained in the content of the coursework required for certification.

Code of Ethics

Each professional association carries its own Code of Ethics, adherence to which is a condition of continuing membership.

Professional Certification

To-date, the BAA™'s certification remains the only university-level program for Business Architects, though others are expected very soon.

The Role of Corporations

There are several important roles that corporations play in the Business Architecture profession.

Establish a Business Architecture Group

Corporations should establish their own Business Architecture Groups initiating a few simple engagements to gain experience, elicit executive sponsorship, and provide reasonable access to the organization's subject matter experts and data sets stored throughout the organization.

Employ Certified Business Architect (CBA)®s

Organizations should hire Business Architects who have received comprehensive training in business architecture from a quality organization taught through accredited universities. Organizations should incent existing employees to pursue certification, improve their skills and actively participate in professional associations.

Provide Financial Support and Speakers to Industry Associations

Corporations are the ultimate beneficiaries of the work of Business Architects, and have a vested interest in ensuring the field is well-managed, sufficiently funded, and cognizant of the unique challenges corporations face. To accomplish this, corporations should provide sponsorship support to the Business Architects' professional organizations, speakers for their events and volunteers to serve on their boards and committees.

Educate Executive Management about Business Architecture

The corporation will benefit from Executive Management being informed about the value Business Architects can bring, and Business Architects will benefit from exposure to Executive Management. Executive Management must understand the value of their work, the concepts that underlie their methodology and the ways the organization can best leverage their expertise. They must also be made aware that improvements in the organization's architecture will necessitate adjustments to the way the organization is managed.

The Role of Universities

Universities will lead and advance the development of the field of Business Architecture through research and teaching, and sponsoring public awareness and collegial debates among peers.

Research, Publication and Symposia

Faculty, Ph.D. candidates and researchers will adopt business architecture subject matter upon which to conduct research, present their data at conferences, debate their conclusions at symposia and publish their findings in scholarly journals. This research will provide empirically supported content to textbooks and course syllabi.

Producing the Next Generation of Business Architects

Universities will offer specialized courses that provide students with the knowledge they need to serve as capable and responsible practitioners in the field. University accreditation ensures that the university's Business Architecture program is well balanced and in alignment with foundation concepts of the profession, which the student will encounter in the Business Architecture certification exam.

For example, DePaul University's Business Architecture program, taught through its AACSB-accredited MBA and associated continuing education programs, is accredited by the Business Architects Association®, and completion of the program is a precondition to the BAA™'s Certified Business Architect (CBA)® certification.

The Business Architecture MBA Major

It is expected that universities will begin to adopt the Business Architecture major within the Management & Strategy departments of their MBA programs.

Public Education - Lectures, and Seminars

Universities have the opportunity to take a leadership role in educating the general public about Business Architecture through courses, lectures, journals and conferences.

The Role of Professional Associations

Business Architecture, like any professional field, relies on the support of professional associations, led by senior practitioners in the field, who help guide and promote the profession, pursue research, develop tools and standards, define requirements for attaining and maintaining professional status and provide forums for the discussions that move the profession forward.

Normalize the Profession

Professional associations, through discussion and debate, help to normalize the profession, arriving at a peer-approved consensus of the definition of what a Business Architect is, what they do, what they should know, how they are engaged, upon which their clients in corporations and governments can rely.

Set Professional Qualifications

Professional associations will set the qualifications required by practitioners to attain and maintain professional status. For example, the Business Architects Association® has set very specific criteria for a Certified Business Architect (CBA)®. These criteria include the completion of specialized coursework taught through an accredited university program by an accredited instructor.

Promote the Profession

Professional associations present to business leaders, corporations, HR professionals and hiring managers and conduct public relations campaigns to make people aware of the profession, the benefits of hiring their constituents and the value of having a Business Architecture Group in their organization.

Support Practitioners in the Field

Practicing professionals, when encountering new challenges, look to their professional associations for information, tools, standards, vendors, job leads and connections with the subject matter experts they need to help accomplish their goals. They depend on their professional associations to educate their clients and employers about the nature and value of their work.

Deepen Knowledge, Establish Standards, Disseminate Information

Professional associations support research that explores new concepts and solves challenges encountered by practitioners. They summarize and publish their empirical data, which are quoted as reliable standards by practicing Business Architects. They provide publishing outlets, conferences and seminars that feature leading researchers and authors in the field.

Create Tools

Professional associations partner with vendors to develop the specialized tools Business Architects need to accomplish their work.

Accredit, Certify & Endorse

Professional associations provide regulatory support for the profession by accrediting the educators and educational programs that provide comprehensive training for professional Business Architects, certifying the professionals that have completed these programs and endorsing others who provide support to the profession.

The Role of Management Consulting Firms

Leading management consulting firms have been the traditional contract providers of Business Architecture services to corporations and governments. The maturing of this field does not indicate a move away from their leadership. Quite the opposite, it signals a greater need for their participation and leadership in the field.

Industry Leadership

The Business Architecture profession looks to management consulting firms to take a leadership role by serving on the volunteer boards and committees of its professional associations, sponsoring events, sending their employees for certification and paying for professional memberships.

Provide Services

Management consulting firms provide Business Architecture leadership to organizations that do not have Business Architecture professionals on staff, especially smaller organizations for whom the cost of supporting a full-time Business Architecture Group does not make sense.

Marketing Business Architecture Competency

The profession will benefit from management consulting firms listing Business Architecture among their core competencies in their marketing materials, and educating their clients about the value and benefit Business Architects can bring to their organization.

Business Architecture Today

The profession of Business Architecture has been launched. It is being taught in universities, there are over 300 certified practitioners in the marketplace, and a dozen or two large corporations have launched Business Architecture Groups. Professional associations for Business Architecture are in place and growing, articles are being written about issues affecting the profession and Business Architecture is considered one of the most promising emerging professions.

Future efforts will focus on solidifying the profession by attracting seasoned practitioners into leadership positions with Business Architecture professional associations, forming mutually supportive alliances among associations, expanding the number of universities with accredited Business Architecture programs, increasing the number of corporations with Business Architecture Groups and consultancies that list Business Architecture among their competencies, and greatly increasing the number of Executive Managers who value business architecture and Business Architects.

About the Authors

Paul Arthur Bodine CBA NCARB is the co-founder of the Business Architects Association®, Executive Director of the Business Architects Association Institute™ and creator of DePaul University's Business Architecture course, which is accredited as Certified Business Architect CBA® certificate course by the Business Architects Association®, which he has been teaching since 2002. Paul is a licensed building architect, Kellogg MBA, two-time international entrepreneur and Fortune 400 veteran of the dot-com era. Contact Paul at: pbodine1998@alum.kellogg.northwestern.edu

Jack Hilty is a Certified Business Architect (CBA®) with 25 years of enterprise-wide experience in providing overall leadership in the design and development of Information Systems, specializing in business process management, change management, project management, service oriented and enterprise architecture. Jack is the Managing Principal at SentientPoint, Inc. He has developed and teaches professional training courses and is a faculty member at Northwestern University's School of Continuing Studies and an instructor, adjunct faculty at University of Chicago Graham School. Jack holds a Bachelor of Science Degree in Computer Science from DePaul University and is a member of the Association of Business Process Management Professionals (ABPMP), and Executives' Club of Chicago and President of Business Architects Association® (BAA™). Contact Jack at: jhilty@sentientpoint.com

Appendix 1: The Business Architects Association® (“BAA™”)

About the BAA™ (www.businessarchitects.org)

The Business Architects Association® (“BAA™”), the first professional association dedicated to Business Architecture, was formed in 2003 to establish Business Architecture as a profession. It established the first certification program for Business Architects and accredited DePaul University’s Business Architecting program as its first qualifying educational program leading to certification. Today, it enjoys a diverse membership from around the globe, and has certified over 300 Certified Business Architects (CBA)®.

Business Architects Association Institute™, the first research institute in the Business Architecture field, is the BAA™’s research and publication arm. It is committed to the continuous advancement of the profession through research and best practices sharing. It collects, catalogs and publishes the content that makes up the Business Architect’s Body of Knowledge, and helps the profession to achieve a common definition of what a Business Architect is and what a Business Architect does.

Benefit to Corporate Executives, Practicing Business Architects, Corporations, Governments and Industry Associations

The BAA™ provides corporate executives around the world with the benefit of the latest research and insight about Business Architecture and how to leverage its power to help transform their organization.

The BAA™ provides professional Business Architects with the support they require to excel as leaders in business transformation projects - as well as connect with the professionals and ideas that can enhance their careers.

The BAA™ delivers a steady flow of trained and certified Business Architects from which HR departments and hiring managers in corporations and governments can confidently recruit. Candidates’ membership in the Business Architects Association® indicates a commitment to ethical practice, which is contained in the BAA™ Code of Ethics to which each member must pledge themselves.

The BAA™ reaches out to partner with other professional associations, conference providers and standards organizations through collaboration and reciprocal endorsement opportunities. It welcomes active participation by all practitioners, educators, authors and interested persons who have a passion for Business Architecture.

BAA™ Programs

Certified Business Architect (CBA)® Program

The CBA™ is the BAA™'s certification for professional Business Architects. It sets the definition of a Business Architect as: "One who has received their CBA™," and provides employers and prospective clients with a clear, reliable and objective evaluation of the skills of a professional Business Architect. The CBA™ is conferred to those who pass the CBA Exam™. Completion of a BAA™-accredited Business Architecture program is a prerequisite for certification.

The BAA™ does not teach courses or provide training directly—it is not its area of expertise, and wishes to avoid competing with its education partners. Instead, it accredits the institutions and instructors that teach its certification courses, and endorses course content through its BAA Institute™.

Master Business Architect (MBARCH)™ Program (*coming soon*)

This is the highest designation of competency for Business Architects, and is recommended for those who lead Business Architecture Groups in corporations.

CBA Updates™ Continuing Education Program (*coming soon*)

CBA Updates™ is the BAA™'s continuing education program. It is designed to keep its members' knowledge current, while placing the least possible burden on their time.

BAA™ Research and Publication Program

The BAA™'s research and publication is conducted through a separate entity, the Business Architects Association Institute™ (BAA Institute™). The BAA Institute™ is the "keeper of the content," including its Body of Knowledge and suggested course curriculums. (www.baainstitute.com)

BAA™ Body of Knowledge

The BAA™ Body of Knowledge is the accumulated knowledge specific to the practice of Business Architecture, command of which forms the basis of CBA™ certification. This body of knowledge is maintained by the BAA Institute™. (www.baainstitute.com)

BAA™ Code of Ethics

The BAA™ Code of Ethics is a set of standards governing member conduct to which BAA™ members agree to abide as a requirement for continuing membership.

Appendix 2: The Nature of Professions

According to the Oxford English Dictionary and Wikipedia, “A profession is an occupation, vocation or career where specialized knowledge of a subject, field, or science is applied.” Based on this definition, Business Architecture certainly qualifies as a profession.

Further, “It is usually applied to occupations that involve prolonged academic training and a formal qualification...” Other professions such as law, medicine and building architecture require not only a university degree, but also extensive study and accreditation. This also seems to appropriately apply to more recently-formalized disciplines such as Business Architecture.

Guiding Bodies

Each profession has a professional body, regulatory body, learned body and standards body. These may be single, separate or multiple entities. Guiding bodies typically are self-regulating, independent from government and led by senior, respected practitioners and highly qualified members of the profession.

Professional Body:

- Promotes its profession by encouraging the employment of its members by potential clients.
- Improves the profession by pressing for the advancement of its professional knowledge and practice, and the training of its members.
- Protects the public by ensuring its members are well-trained and follow certain codes of practice and ethics.
- Protects its members’ interests by pursuing legal recognition for professionals and defends against infringement by competing entities. Some professions use trademarks to protect their members, while others press for legal statutes from governmental bodies.

The Regulatory Body:

- Identifies the content to be contained in the profession’s official Body of Knowledge.
- Defines minimum membership qualifications and verifies member compliance with minimum qualifications.
- Identifies education outlets that provide training in the profession’s Body of Knowledge.
- Administers testing and maintains testing records.
- Pursues trademark violations, false claims of certification and violations of the Code of Ethics by members.

The Learned Body:

- Promotes an academic discipline, advancing the knowledge of the profession by collecting, validating, retaining and publishing the Body of Knowledge.
- Holds conferences for the presentation and discussion of new research results.

The Standards Body:

- Develops, coordinates, revises, amends, interprets, issues, and otherwise maintains standards that address the practice of its members and interests of a wide base of users outside the standards development organization.
- For some, the Standards Body specifically establishes safety standards and interface standards which detail how products interconnect with one another. This applies to professions like building construction (safety) and information technology (interface).

Jurisdiction

Professions have defined jurisdictions: territories across which the authority of a professional and regulatory body applies.

Some professions lend themselves well to jurisdictions, like building architecture in which there is a physical product attached to the ground. Others do not easily lend themselves to jurisdictions like Business Architecture, whose scope of work often applies to organizations that may have branches in multiple locations around the world.

Licensure and Professional Certification in the U.S.

Licensure and Professional Certification are designations that signify a person has demonstrated to a regulatory body his/her ability to perform a task or execute a responsibility at a minimum level of competency, and is expected to be able to continue to do so into the future.

The completion of an approved educational or training program is often required as a prerequisite to licensure or professional certification. To renew a license or professional certification, it is common to require an individual to show evidence of continual learning by earning continuing education units (CEU).

Professional certification is equivalent to licensure, with three primary distinctions:

1. Licenses are issued by governmental bodies (usually the States in the U.S.), professional certifications by professional associations.
2. Licenses are tied to jurisdictions, and must be applied for in each jurisdiction (state) in which the individual practices. Professional certifications are not tied to jurisdictions and multiple professional associations may issue their own independent, overlapping certifications. (As such, hiring managers need to not only

look at a person's professional certification, but also the quality of the program from which it was received when assessing a candidate.)

3. Licenses are required before being able to perform a task or job, professional certifications are not.

Professions that are not associated with public safety, do not necessarily benefit from expensive and cumbersome government oversight or do not lend themselves well to jurisdictions may opt for professional certification over licensure. Business Architecture is such a profession.

Professional certification should not be confused with skill-based certification, which simply involves the demonstration of a skill rather than the judgment of a profession.

Body of Knowledge

Each profession has a specific, approved Body of Knowledge, mastery of which is required by those of its members who are licensed or professionally certified.

Code of Ethics

A code of ethics is often a formal statement of a professional organization's values on certain ethical and social issues. Some present general principles about an organization's beliefs on matters such as quality of work, employees or the environment. Others address specific ethical situations, such as conflicts of interest or acceptance of gifts, delineate the procedures for determining whether a violation of the code of ethics has occurred, and if so, what remedies should be imposed.

Appendix 3: Comparative Example: U.S. Building Architect's Profession

Building Architecture as Paradigm

The building architects' profession has evolved over thousands of years of best practices learned, and offers a reasonable paradigm from which to begin to view the Business Architect profession in that architects undertake activities that affect the whole or part of an organization.

The Term: "Architect"

In the United States, the legal definition of an "Architect" is an individual who possesses a current license to practice architecture from at least one state.

History

Building architecture began as an activity that each family performed to provide themselves with shelter. As villages sprang up, work became more specialized and the person who showed an ability in building became a master builder, while others became hunters, millers, etc. The original master builders were responsible for all aspects of design and construction management.

As work became more specialized, guilds formed. Guilds were best practices-sharing groups that supported those working in a particular decorative or construction field (trade) — one guild for each trade. Over time, guilds came to represent the interests of their participants as a whole, eventually evolving into trade unions and professions.

As these professions grew, they spawned new professions. One hundred years ago, the master builder profession divided into the architects who design the building, and the general contractors who hire and oversee the various trades needed to construct the building. Similarly, the architectural profession has spawned its own technical specialists, known as engineers – civil, structural, mechanical, electrical, acoustical, etc. – and design professionals - landscape architects, interior designers, etc.

How a Building Architect Works

Today, a property owner (client) prepares a project statement and proforma describing what they would like to have built, the equivalent of the functional requirements of a business project. The property owner hires an architect. The architect assembles a team of assistant architects and appropriate engineers, consults with the client, governmental regulators and construction specialists to understand the opportunities and constraints, and then prepares several design solution options, which satisfy all constraints, from which the client can choose.

The architecture team prepares the detailed drawings and specifications for the solution chosen by the client, which make up the contract documents at the heart of the Owner-Contractor agreement between the client and general contractor who will build the building.

Building architects often specialize by building type—residential, commercial, retail, high-rise, historic, etc. This allows them to build a deep experience in the design, methods and materials appropriate for this type of project.

Jurisdiction

Architects must have a valid license to practice from each state in which they perform work, and may apply for reciprocity to practice in other states through the National Council of Architecture Registration Boards (NCARB).

State Licensure and Professional Liability Insurance

Building architects are licensed to “protect the health, safety and welfare” of the populace. (Note that design is not an attribute of licensure.) The state charges the architect with the responsibility of interpreting building codes and zoning ordinances, adhering thereto when preparing their drawings, and affixing their signature to the drawings testifying to not only their compliance but also the validity of the architect’s license.

Municipalities require the receipt of signed drawings before they issuing the building permits required before owners can proceed with construction. The architect who signs the drawings is personally liable for any errors or omissions in the drawings, no matter when they may be discovered, for their lifetime. Architects must carry professional liability insurance to cover these errors and omissions for their lifetime whether or not they continue to practice architecture.

Licensure Requirements for Building Architects in the U.S. 2009

Though each state’s requirements vary slightly, building architects generally, in order to obtain and maintain their licenses, must:

Receive a degree from a school of architecture accredited by **NAAB**.

(5 or 6 year university program)

Serve two+ years of apprenticeship to a licensed architect with required exposure to important areas of practice.

Pass the Architectural Registration Examination (ARE) administered by **NCARB**.

(9 divisions over 3+ days)

Apply for, receive and pay the annual fee for the architectural licensure in the states in which the architect practices.

Complete yearly continuing education requirements—e.g., 12 hours in Illinois.

Some municipalities are beginning to additionally require LEED certification from the

USGBC. <http://www.usgbc.org>

Requirements continue to become more stringent over time. Failure to maintain licensure may require retaking the exam. Membership in professional organizations like the American Institute of Architects (**AIA**) is strictly voluntary.

The Building Architects' Education

A number of fine universities offer architecture degrees accredited by NAAB. The Architecture degree program includes three components:

Design Courses

At the core of every accredited school of architecture are its rigorous design courses. The design course involves designing one or more buildings each semester. Students present their final projects to juries of licensed architects.

Depth Courses

Other courses focus on detailed aspects of building design—e.g., architectural history, theory, construction management, budgeting and systems engineering.

Breadth Courses

Elective courses in arts, sciences, economics, urban planning, psychology, etc. are intended to broaden the student's view of the world.

The Building Architect's Body of Knowledge

The building architecture profession is very old and its broad body of knowledge is distributed across libraries, universities, architectural offices, vendors and associations. The concepts included in the Architectural Registration Examination are drawn from this broader body of knowledge, and vary somewhat year-to-year. As such, there is no one single checklist Body of Knowledge for the profession, just a tacit understanding of what a practicing professional should know.

Professional Associations

AIA

The primary professional organization in the U.S. is the American Institute of Architects, (AIA) <http://www.aia.org>. The AIA represents the professional interests of architects, provides public events and training, and publishes standard form contracts used as the basis for the relationship between all parties in a construction project.

AIA members meet stringent qualifications, continually improve their knowledge, and adhere to a code of ethics and professional conduct intended to assure their clients and the public of the highest standards in professional practice.

The AIA's membership categories include: Architect Members for licensed architects, Associate Members for recent graduates with a degree in architecture working toward licensure and faculty members in a university program in architecture, International Associate Architect Members licensed outside the U.S., Allied Individual Members for nonarchitects who have a special interest in the built environment and Cornerstone Partners who include building product manufacturers, service providers to architects and trade associations.

Many countries have their own version of the AIA—e.g., RIBA in Britain.

NAAB

The National Architectural Accrediting Board (NAAB) <http://www.naab.org> accredits schools of architecture, verifying each accredited school substantially meets those standards that, as a whole, comprise an appropriate education for an architect. The schools qualify the instructors to whom they assign architectural courses; there is no separate educational regimen for an architectural educator.

NCARB

The National Association of Architectural Registration Boards (NCARB) <http://www.ncarb.org> writes and administers the Architectural Registration Examination (A.R.E.).

Industry Associations

There are numerous industry organizations, at least one for every trade and product category, whose expertise building architects consult and whose standards architects quote as a part of their work, including: CSI, ASTM, ANSI, UL, ASHRAE and USGBC.

Similarities and Differences - Building and Business Architecture

Comparing and contrasting Building and Business Architect professions, the following is apparent:

Similarities	Differences
<p>The Architect designs complex systems comprised of many disparate parts.</p> <p>An Architect’s activities impact not only specific areas within an organization, but also the organization as a whole.</p> <p>Their work is judgment-based, balancing both art and science.</p> <p>Architects work with, and rely on, the expertise of one group of professionals to design their solutions, and another group to implement them.</p> <p>Both work in teams and as a part of a larger process chain.</p> <p>Architect services can be provided as an internal staff member or an external consultant.</p> <p>Architects neither initiate nor own the outcome of their work. They are not responsible for implementation nor ongoing operations.</p>	<p>Buildings are designed to be static while businesses are highly dynamic and constantly changing.</p> <p>The Building Architect profession is mature and stable, while the Business Architect profession is relatively new and rapidly expanding.</p> <p>Business Architecture applies to organizations that may span across geographic and cultural lines, not being tied to a single building site.</p> <p>Since a Business Architect’s work is unlikely to impact life safety, their profession does not require governmental agencies’ oversight of their profession.</p>

Engagement Processes Compared

The way Building and Business Architects generally work are strikingly similar; both are ITERATIVE processes that are rerun from the beginning as new information comes in. The differences reflect the differences between businesses and buildings, the more visible, tangible nature of a building and the Building Architect's use of industry standard form contracts to define their engagements.

	Building Architect		Business Architect ^{vii}
Phase I	Predesign	Phase I	Definition & Commitment
		Phase II	Discovery
Phase II	Schematic Design	Phase III	Conceptualization
Phase III	Design Development	Phase IV	Socialization
Phase IV	Contract Documents	Phase V	Documentation
Phase V	Bidding	Phase VI	Package & Release
Phase VI	Construction Management	Phase VII	Implementation Administration

Predesign/Definition & Commitment, Discovery Phase

The Architect enters into an agreement with the owner that includes the objectives, scope of services and a commitment from the owner to actively participate in the process and willingly adjust their viewpoint as new information comes to light. (This language is contained in the Building Architect's standard form agreement.) Predesign/Discovery includes listening carefully to the needs, wants and desires of the owner, delivery of pertinent documents and data research to the Architect upon which they can rely, comprehensive research necessary to understand the opportunities and constraints inbuilt in the substance of the engagement, and assessment of the feasibility based on environment, standards, budget, and other constraints. Appropriate adjustments are made to the contract/definition.

Schematic Design/Conceptualization Phase

The Architect explores different options and presents the best to the owner for selection. Appropriate adjustments are made to the contract/definition based on new information and opportunities discovered during this phase. Obtain the owner's approval to proceed.

Design Development/Socialization Phase

The Architect fleshes out the agreed upon design and engages all stakeholders and subject matter experts by making them aware of the upcoming changes, eliciting their ideas and incorporating the benefits of their expertise in the design. Appropriate adjustments are made to the contract/definition and design based on new information and opportunities discovered during this phase. Obtain the owner's approval to proceed.

Contract Documents/Documentation Phase

The architect, with the aid of key subject matter experts, prepares the documentation needed by the implementation team to understand what needs to be accomplished, by when and at what quality level. The architect “builds the project on paper,” stepping through the process of construction to ensure the documents contain all necessary elements without redundancies, coordinating the elements and identifying necessary sequencings to ensure buildability. Appropriate adjustments are made to the contract/definition and design based on new information and opportunities discovered during this phase. Obtain the owner’s approval to proceed.

Bidding/Package & Release Phrase

The architect issues the bid set of documents, which contain all of the information required for general contractors/project managers to make an informed cost and time estimate, followed by the final construction documents, which contain all of the information required by each trade/department to build the project, and which draw special attention to atypical conditions. The Business Architect’s engagements often result in a series of separate projects, which the Business Architect releases to project management in a sequenced fashion to maintain dependencies, or “fast track,” which allows implementation work to begin on some projects while the documentation for others is being completed.

Construction Management/Implementation Administration Phase

The architect helps to shepherd the projects through to successful completion by interpreting the documents, providing clarifications and aiding in problem solving. Business Architects will often additionally make introductions to those working in other departments, obtain approvals and keep senior and executive management informed of progress.

ⁱ Business Architects Association is a registered trademark of the Business Architects Association Inc.

ⁱⁱ Hammer, Michael and James Champy. “Reengineering the Corporation.” New York: Harper Collins; 1st edition January 1, 1993.

ⁱⁱⁱ Kaplan, Robert S. and David P. Norton. “The Balanced Scorecard: Measures that Drive Performance.” *Harvard Business Review* Jan – Feb, 1992.

^{iv} NPV: Net Present Value: A calculation of the expected future net cash flows discounted into present day dollars.

^v Certified Business Architect (CBA) is a registered trademark of the Business Architects Association Inc.

^{vi} NPV: *ibid*

^{vii} Hilty, Jack, Thomas Clancy, Tom Caprel, and Paul A. Bodine. “Business Architects Iterative Engagement Process.” *Business Architects Association Institute*, 2009.

Reference Citation for this paper:

Bodine, Paul Arthur and Jack Hilty. “Business Architecture: An Emerging Profession.” *Business Architects Association Institute*, Edition April 7, 2009. (42 pgs)

This article may be reprinted for academic and noncommercial use provided no alterations are made and the copyright notice remains intact. For other uses, please request approval from the authors at:

pbodine1998@alum.kellogg.northwestern.edu or jhilty@sentientpoint.com