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Update

Business Architecture: Part I — Why It Matters to Business Executives

by William Ulrich, Senior Consultant,
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Business architecture is gaining recognition as a game-changing discipline that enables businesses to address major challenges in new and unique ways. Simply put, business architecture allows a business to establish a common vocabulary, shared vision, and a degree of transparency that facilitates initiatives ranging from M&As to the reversal of customer attrition. But even as business architecture success stories emerge, the message has been slow to penetrate the executive suite. This *Executive Update*, the first in a series, discusses why business leaders should embrace business architecture as a means of addressing complex business challenges in ways that senior leadership can no longer ignore.

Consider some real-world cases: A pharmaceutical firm uses business architecture to expedite a large-scale merger. An international airline follows suit. A finance and insurance company uses business architecture to investigate and reverse customer loss. A government agency uses business architecture to establish a vision to enable customer self-service. An international finance company uses business architecture to align the enterprise to a new business model. And finally, a large financial institution leverages business architecture to streamline its complex, postmerger portfolio.

THE BENEFITS OF BUSINESS ARCHITECTURE

In each of these scenarios, business architecture is sponsored by business leaders. This is essential because business architecture is owned by — and most benefits — the business. The most effective and impactful business architecture teams are comprised of business

professionals representing a cross-section of business units, and this requires senior business sponsorship. Unfortunately, the business architecture message is just beginning to reach business leaders who are accountable for the success of these types of initiatives. To build executive support for business architecture, the benefits must be communicated in business terms. Common benefits include:

- Delivers transparency and clarity to enable stakeholder collaboration, issue analysis, and problem resolution
- Provides transparency across business units, product lines, and outsourced teams to enable cross-functional planning and ensure that funded initiatives are not working at cross-purposes
- Aligns business processes across business units and product lines, delivering stakeholder-focused benefits far beyond traditional “lean” or similar process-streamlining exercises
- Offers management teams a holistic view of the business that extends to outsourced, customer, and other stakeholder domains
- Establishes a framework of concepts that allows the business to clearly communicate current-state business challenges and articulate a business-centric vision for the future
- Allows the business to take ownership and drive transformation strategies through business-centric roadmaps and funding models
- Offers IT a way to recast project-funding discussions in terms of business capabilities and stakeholder value, streamlining often difficult IT budget discussions

A COMMON VOCABULARY

Business architecture’s main benefit is that it delivers a common vocabulary for communicating and reconciling critical business issues across a wide variety of stakeholders. Miscommunication is rampant across business. Terms as seemingly straightforward as “customer,”

“representative,” “product,” “margin,” “vendor,” “broker,” and “partner” are generally assumed but often misconstrued. Miscommunication is particularly common when discussions cross product lines and business units, which can lead to major problems, including a misstatement of expenses or angry customers. Poor communication stymies a wide variety of initiatives, such as improving basic business capabilities, creating common customer views, aligning processes across business units, and delivering accurate financial and regulatory reporting. Consequently, businesses have created modern-day versions of the Tower of Babel, which was never finished because the speech of the builders was confounded.

Consider two cases highlighting how lack of a common vocabulary can stymie progress, while a common business vocabulary can overcome these roadblocks. In the first case, teams responsible for creating coherent views of business information struggled for years to create a common view of enterprise data. The teams lacked an agreed-upon set of business definitions, and numerous initiatives stalled. The business wasn’t engaged and couldn’t see why this mattered. In the second case, a business architecture team created a capability map that identified what the business does in complete, concise ways. Capability definitions provided to the data architecture team allowed the team to craft a common data model that fully aligned to the business vocabulary. While teams in our first case continued to struggle with creating priority management initiatives, teams in our second case created a common information model that expedited projects across business units, customer initiatives, product lines, and complex processes and technologies.

The lesson learned here is that the lack of a common vocabulary has far-reaching effects and is the basis for many failed projects. Misperception and miscommunication stem from and further compound widespread redundancy and inconsistency, which in turn can lead to customer losses, missed opportunities, lost revenues, and millions of dollars in failed initiatives. The same issues are rehashed meeting after meeting due to a lack of transparency across business units and product lines. This process repeats itself year after year, stalling major initiatives, leaving business opportunities on the table, and running up spending on failed projects.

Business architecture addresses these issues by establishing a common language that planning and deployment teams can use to establish a routine understanding of issues as the basis for crafting robust, long-term solutions with demonstrable business benefits. Figure 1 provides an overview of the four main aspects that create the foundation for your business architecture: business capability, information assets, organizational view, and value streams. While business architecture includes other categories, these four comprise the baseline that business uses for issue analysis, planning, strategy planning, budgeting, and solution deployment. Each category represents a unique view of the business but all are connected through a common vocabulary. The following summarizes this foundational view:

1. **Business capability.** Capabilities provide a complete view of “what” a business does. Customer Management, for example, is a capability. Capabilities are organized into the *business capability map*, a hierarchical topology of what the business does. This map serves as a foundational view of the business that eliminates the inherent complexity involved in discussing “how” something is being done or “who” is doing it. Capabilities provide the basis for crafting business-driven transformation strategies, which often include improved or new, automated solutions.
2. **Information assets.** Business information assets clearly define the information required to ensure that each capability is robust, viable, and acceptable to the business from a strategic perspective. For example, the definition of the “Account Management” capability must correspond to the definition of the information asset “Account.” Information assets, along with capabilities, form the foundation for the business vocabulary and data architecture.
3. **Organizational view.** Organizational view creates a structural overview of the business. This includes traditional business units and subunits but can be extended to include collaborative teams, outsourcers, and other external stakeholders. Organizational views can be enhanced by mapping business units to strategies, capabilities, and initiatives.
4. **Value streams.** Value streams depict the activities involved in how a business delivers end-to-end

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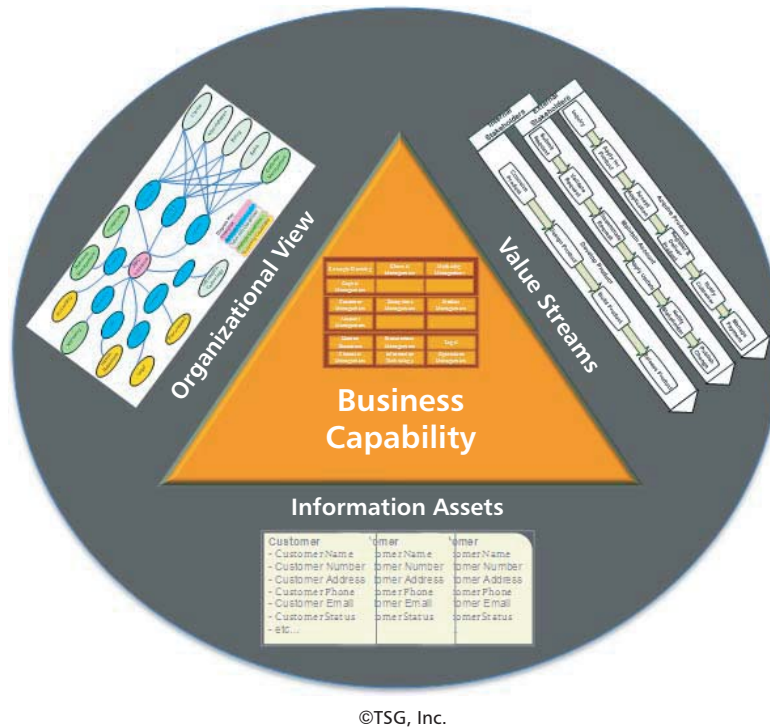


Figure 1 — Business architecture foundational view.

stakeholder value. While the capability map is said to show the business “at rest,” value streams show the business “in motion.” Common value stream examples include Manage Customer Portfolio, Update Account, and Build Product. Value streams are always triggered by a stakeholder, shown as end-to-end views, and represent an aggregated view of cross-functional business processes. Value streams are the main aspect of business architecture used to align and consolidate business processes and deliver automated solutions with a high degree of stakeholder visibility.

BUSINESS ARCHITECTURE PLANNING, ROADMAP CREATION, AND BUDGETING

Business architecture provides a basis for transforming how business communicates and collaborates to achieve its goals across business units and product lines. One of the most fundamental benefits, however, is that business architecture enables a more business-focused investment strategy in major initiatives. Most noninfrastructure-focused IT spending is typically aligned to a given set of software applications. This approach limits the business vision to a siloed, technology-centric point of view and leaves critical capabilities not part of an IT solution today off the table, virtually ignoring

horizontal views of how to deliver stakeholder value. Positioning investments in terms of business capabilities and value streams allows the business to focus on business value and not on IT centricities.

Using business-focused roadmaps and related budgetary models does not imply a “big bang” or “boil the ocean” approach. Having visibility across more than a single business unit does not mean that all issues or technologies will or should be addressed in a single project. Delivering a business-driven vision, strategy, roadmap, and related funding model through the use of the capabilities and value streams provided by the business vocabulary means that all aspects of a given capability and/or value stream are considered when making major initiative investments. However, this is rarely the case today because such visibility is sorely lacking.

For example, consider a bank that implemented a replacement system for a small portion of its risk-rating environment with no understanding of how it would replace the two systems already enabling this capability. Millions of dollars were spent, leaving the bank with three redundant, yet fragmented, applications enabling this capability. Little business value was achieved, and now the bank has three systems implementing the same capability in different ways, using

three different views of business information. Consequently, the business has destabilized a portion of its business model. This could have been avoided had the business provided a capability-focused mandate to streamline and consolidate risk rating, along with a common strategy, vocabulary, and vision for the risk-rating capability and related information assets.

Thus, business architecture represents a philosophical shift in how we discuss business challenges, communicate across business lines, establish deployment plans, and allocate funding to improve business capabilities and stakeholder value. This shift will take time for many organizations and involves the transition from silo-based infrastructures, where every business unit has its own language, to a business ecosystem, where interdependencies — particularly where it impacts stakeholder value, risk management, and bottom-line results — are addressed in cohesive ways through streamlined approaches.

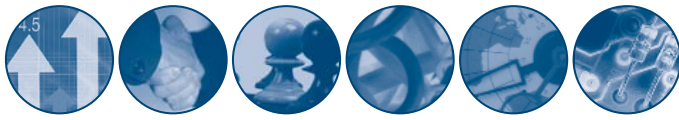
With business architecture, ineffectiveness and inefficiencies that drive up costs and contribute to failed projects will fade as a common business vocabulary takes hold. There is no need to wait for results. Many of the organizations introduced at the beginning of this *Update* began benefitting from business architecture in a very short period of time. As the business architecture matures, the use of it will mature as well. It only took a short time after rolling out the first capability map from one business team to begin using it to align strategies, transformation planning, roadmaps, and budgetary funding. Senior business leadership and sponsorship is essential to this effort.

In Part II, we will continue our discussion of the business architecture and examine business-driven transformation strategies, roadmaps, and budget models.

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Mr. Ulrich currently serves as Cochair of the OMG Business Architecture Special Interest Group, Editorial Director of the Business Architecture Institute, Director-at-Large of the Business Architecture Society, and is a member of the EA Advisory Board for Penn State. His latest books include *Business Architecture: The Art and Practice of Business Transformation* and *Information Systems Transformation: Architecture-Driven Modernization Case Studies*. The approaches outlined in these two publications provide a balance to the challenges inherent in delivering business-driven, business-IT transformation. He can be reached at wulrich@cutter.com.



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Update

Business Architecture: Part II — Business-Driven Transformation Strategies, Roadmaps, and Funding Models

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In Part I of this six-part *Executive Update* series on business architecture, we took a look at why business executives must sponsor and enable business architecture for the business.¹ We discussed how business architecture supports a wide range of business initiatives, such as improving customer service and reducing customer attrition; enabling merger, acquisition, and divestiture activities; and deploying new business strategies across product lines and business units. The challenge facing many organizations today is that enterprise strategies and executive mandates rarely align to funded initiatives and project deployments. Fragmented, redundant, or even conflicting projects often take organizations in directions that fall far short of strategic goals and executive mandates, in spite of the millions of dollars spent on these efforts. Here in Part II, we'll discuss how organizations can craft business-driven transformation strategies that address these challenges.

TRANSFORMATION PLANNING APPROACHES AND CHALLENGES

When discussing why executives should leverage business architecture to facilitate strategic planning and transformation, it is useful to examine the challenges facing organizations making large-scale, multi-year IT investments. Planning teams often find it difficult to operationalize high-level policy statements, strategic plans, and new business models across highly segregated businesses. Each division has its own goals

and related funding models and generally lacks visibility into what's happening in other business units. As a result, executives often make large spending decisions with little knowledge of how those decisions may help or harm the enterprise as a whole. This in turn stymies best-laid plans and business transformation strategies.

Today's organizations often find the need to add or retool a major product line, expand into a new line of business, consolidate business units, deploy customer self-service capabilities, and streamline service offerings across regions. Strategic goals such as these require business-driven solutions from a stakeholder, end-to-end perspective regardless of product line, business unit, or even organizational boundaries. In this last case, a business may need to incorporate business partners and outsourcing providers into a given strategy. The ability to clearly articulate transformation plans to achieve these goals is often clouded by organizational, product line, and line of authority divisions. Consequently, executives and management teams have difficulty determining the cross-functional impact of new business models and related strategies, falling back on traditional silo-based project planning and funding models.

Consider, for example, a major claims environment replacement effort that cost several million dollars over a three-year period. The solution focused on a single insurance product line without incorporating the requirements of increasing customer visibility into all claims across all product lines. The stakeholder experience was barely considered as input to the business planning model for this project. As a result, this project — while viewed as a success within one business unit — actually moved the enterprise in the opposite direction of achieving customer visibility for any claim, at any time, across any product line.

This type of situation is commonplace across many industries. Unfortunately, most organizations have limited money, time, and resources to waste on major investments that run counter to enterprise strategies, and can even make a given situation worse. Yet this occurs on a regular basis across industry and government agencies with no end in sight.

USING BUSINESS ARCHITECTURE TO FACILITATE STRATEGIC PLANNING AND DEPLOYMENTS

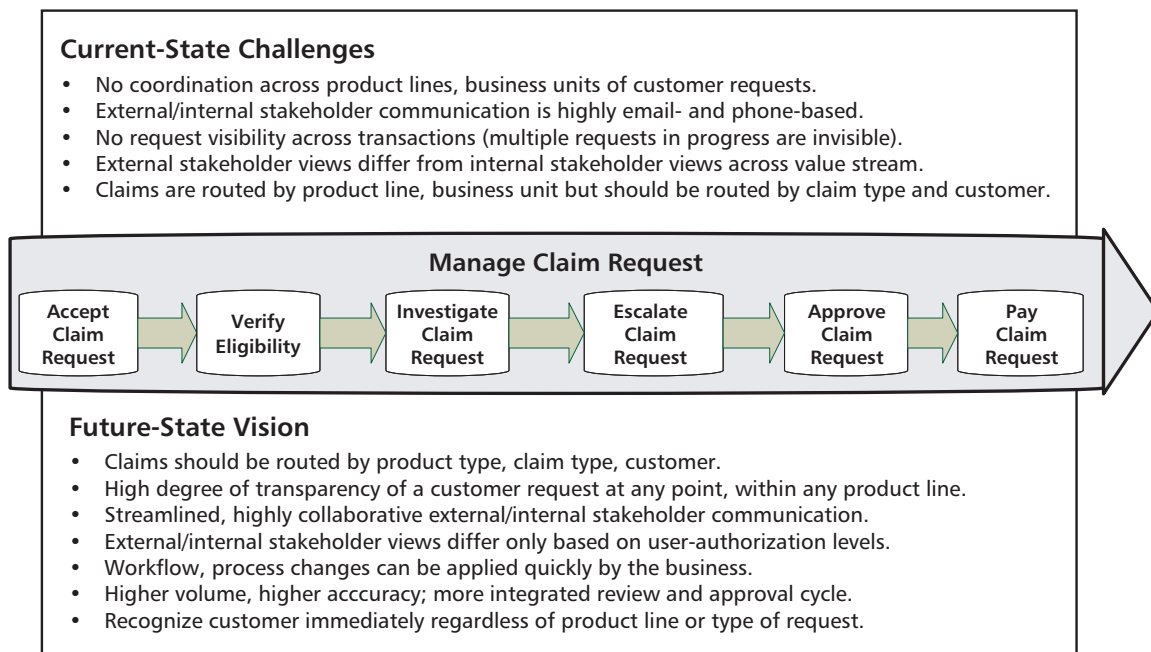
Due to its ability to view an enterprise through a common lens, business architecture offers unique insights into the impact and viability of various business strategies and requirements. For example, a commercial insurance company had just completed several mergers and wanted to align claims handling across product lines and business units. A customer of this company can have several types of insurance products that originated with pre- and postmerger business units. Management wanted to provide a common point of customer contact for premium customers along with streamlining escalation and processing procedures across product lines and business units. Figure 1 views this challenge from an end-to-end customer perspective using a Manage Claim Request value stream.

Claims within this organization, regardless of type, should move through common stages for intake handling, validation, processing, and issuance. Yet in practice, the company processes claims through numerous redundant, disconnected, and often conflicting processes. While customers view the company as a single insurance

firm, this firm has many different, often conflicting, and nontransparent views of the customer. This is because redundant business units employ cumbersome, poorly aligned approaches that rely on independent application software, databases, and desktop software.

The future-state vision, shown along the bottom of Figure 1, involves common customer recognition, eligibility analysis, routing, processing, escalation, approval, and payment for a claim. This shared vision of the “customer experience” that crosses all business units and product lines provides a common framework from which all planning, business process, case management, and workflow deployment discussions flow. This vision establishes a foundation for various planning options, as follows:

- Facilitates prioritization of an overall strategy, approach, and implementation roadmap that provides a common experience for all internal and external stakeholders.
- Reduces dependencies on redundant, inconsistently deployed business processes to a more stable approach that manages a claim as a case file that



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Figure 1 — Value stream view of business challenges and future-state business vision.

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can move seamlessly across and between a series of value stages.

- Provides a pinpoint investment focus for all business capabilities, which in turn is used to derive a common data architecture as well as application/service automation deployments.

We can clarify each of the above points by way of example. To begin, the stakeholder experience of this company varies based on the product line, business unit, system, process, or task involved. In addition, internal stakeholders have one view, while the customer has another. There is little visibility or continuity among stakeholders or across product lines. Business process streamlining and “lean” efforts were used to make each individual path more efficient, but did little to address cross-product line, cross-stakeholder challenges. Efforts to align cross-functional business capabilities and stakeholder experience across a business have largely fallen flat. The value stream concept allows an organization to identify new and unique ways to align stakeholder experience and business capabilities across complex ecosystems by providing a common focal point for all business and IT-related alignment activities.

The second point involves the need to improve how stakeholders can move seamlessly across the value stream. Rather than relying on a series of complex, fragmented processes that require extensive manual intervention or “hidden” desktop tools, the business planning teams envision a future state where a claim case file moves seamlessly and transparently through a series of stakeholder in-boxes based on the changing state of a given claim. This “case management” concept removes the manual intervention and hard-coded decision logic that stymies efforts to align customer experience across product lines and business units.

Finally, business capabilities that enable each stage of the value stream play an essential role in ensuring that the underlying data and application architectures fully support the overall business vision. The capability map, introduced in Part I, is a required prerequisite for ensuring that underlying data and application architectures are transformed in line with the value stream vision. We will discuss the concepts of value stream and capability-based business transformation in more detail in later parts of this *Update* series.

BUSINESS-DRIVEN ROADMAPS AND FUNDING MODELS

Business architecture not only provides a vision for aligning stakeholder value and customer experience across business units, and product lines, but it also allows executives and portfolio managers to change the nature of planning, roadmap development, and related investment strategies. Through our consulting practice, my colleagues and I have reviewed a good number of business transformation plans and have found that many of these plans have several things in common:

- Business benefits and related value proposition are vague, unquantifiable, or altogether absent.
- Projects are narrowly focused or boxed in by political lines, business unit authority, product line, or some other artificial constraint.
- Roadmaps describe project plans in terms of current-state and target-state IT technologies as opposed to the business capabilities and stakeholder value proposition.

From a business value-proposition perspective, the above factors often create an unintended side effect. When a plan or related cost-justification document articulates *little or no business value*, then these projects will derive or deliver *little or no business value*. Narrowly focused initiatives have a minor impact on enterprise strategies and merely reinforce existing business silos and inconsistent, disjointed customer and related stakeholder experiences. Finally, when the business funds a major initiative described in technical terms, it defines the success of that project in terms of success of the system deployment — which can have a detrimental impact on that business.

Crafting business plans in technical terms not only constrains the business vision, but forces IT architects into a corner, limiting their ability to deliver solutions that show quantifiable stakeholder value and improved business capabilities. For example, if a business funds a project called “Billing System Modernization,” there is an implication that this system will retain its architectural footprint well into the future, even if this approach reinforces redundant, inconsistent billing solutions, an inconsistent stakeholder experience, and poorly aligned business capabilities. The resulting IT architecture “lock-in effect,” which is often unintended by business planning teams and portfolio managers, dooms well-intended transformation initiatives.

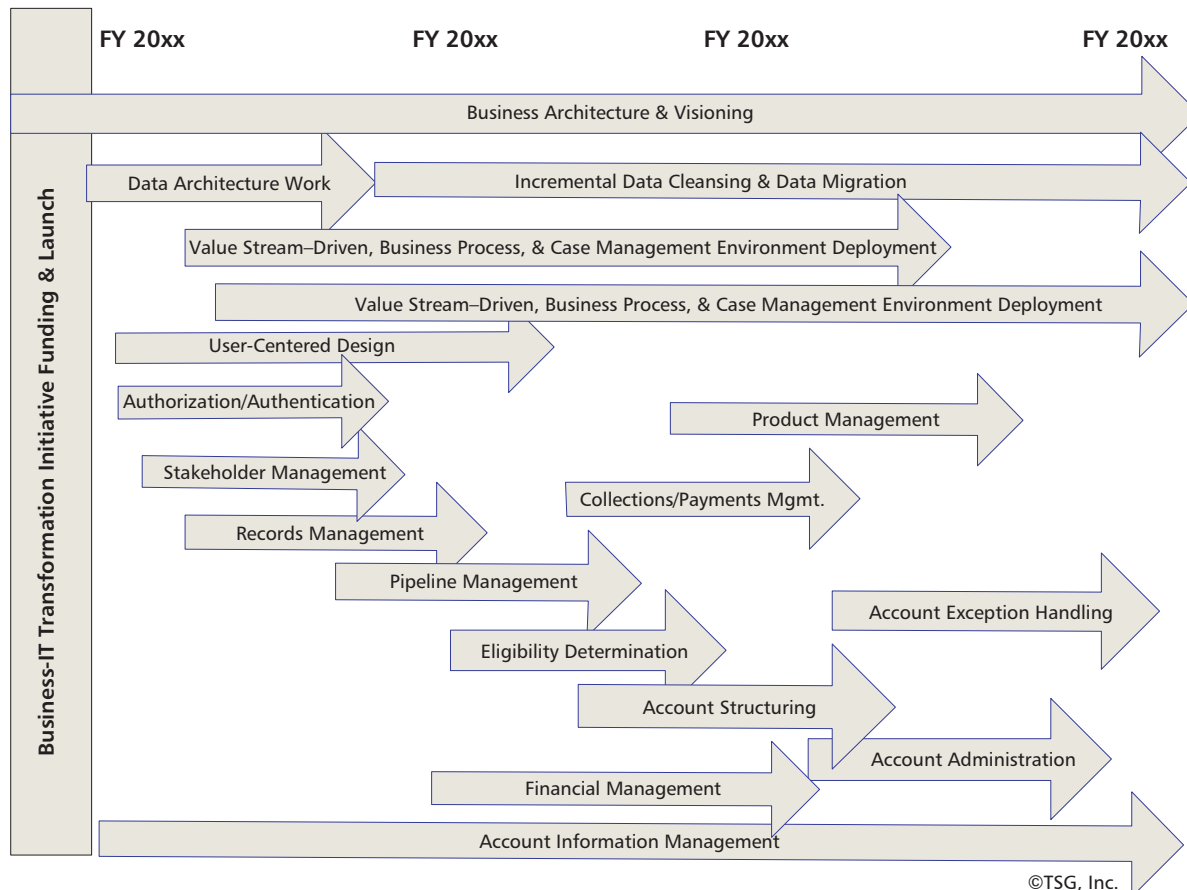
At this point, you may be thinking, “Why is he talking about ‘boiling the ocean’ or a ‘big bang approach’ to enabling business strategy?” I am not. In fact, just the

opposite is the case. Value stream and capability-driven transformation allows management to deliver business value in laser-like increments that align to a strategic roadmap, tied together through the business architecture. Figure 2 shows a sample high-level, business-driven transformation roadmap. While this roadmap is a subset example of what an actual roadmap might include, it highlights several important points:

- Establishing the business architecture-based vision early creates a baseline for delivering a cohesive data and application architecture that aligns to the business vision.
- Avoiding application names on the roadmap, and using only business capabilities and value streams, eliminates the technological constraints associated with most transformation roadmaps.
- Focusing on early-stage data architecture provides a baseline for establishing later-stage solutions that align to a common business vocabulary, as defined by the business architecture.

- Centering on value stream facilitates the consolidation and reconciliation of new front ends, case management solutions, process automation, and related stakeholder experiences.
- Focusing on capabilities (as illustrated in the bottom half of the roadmap) offers IT solution architects great latitude in terms of creating new services and incrementally decoupling and/or modernizing legacy applications.

On an interim basis, projects in progress can be mapped to such a roadmap. Over the longer term, however, the business-driven transformation roadmap offers business executives an opportunity to realign strategic funding models for transformational initiatives. Existing planning and funding models rarely view a business as a whole, but rather see the business as a collection of many parts — each of which has a distinct set of needs and projects to meet those needs. As a result, business-unit executives with a narrow set of requirements and the budget needed to fund those requirements drive the funding of large-scale IT initiatives.



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Figure 2 — Value stream, capability-driven transformation roadmap.

Silo-oriented funding models often have unintended results for the enterprise as a whole, resulting in poorly aligned, redundant projects that spend a lot and deliver little in terms of strategic results. By using the roadmap planning approach outlined in Figure 2, executives can realign funding models by information requirements, value streams, and business capabilities. This ensures that funding of major initiatives is backing projects that align around a cohesive, coherent strategy with cross-functional visibility.

The business-driven approach to business transformation requires that senior executives collaborate on a common approach to achieving strategic goals, many of which can only be achieved through a coordinated view of how to achieve stakeholder value and business capabilities. In this way, business architecture can have a significant and profound effect on how organizations achieve strategic goals over the long term.

Part III will discuss the use of value streams in addressing business transformation, delivering stakeholder value, streamlining business models, and aligning business processes across complex business infrastructures.

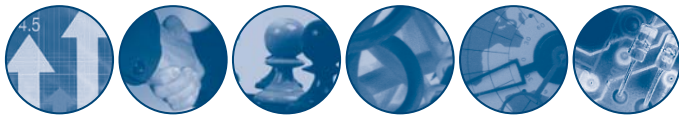
ENDNOTE

¹Ulrich, William. "Business Architecture: Part I — Why Business Architecture Matters to Business Executives." Cutter Consortium Enterprise Architecture *Executive Update*, Vol. 14, No. 7, 2011.

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William M. Ulrich is a Senior Consultant with Cutter Consortium's Business-IT Strategies, Enterprise Architecture, and Government & Public Sector practices and President of TSG, Inc., a management consulting firm that specializes in business and IT planning and transformation strategies. Mr. Ulrich has more than 30 years' experience in the business-IT management consulting field. He serves as strategic advisor and mentor on business-IT alignment initiatives and continues to work as a workshop leader and author. He has the unique ability to cross business and IT boundaries to facilitate and streamline business-IT transformation strategies. Mr. Ulrich's workshops on business-IT architecture alignment have been widely attended by organizations worldwide. His ability to communicate fluently with business executives and professionals and IT executives and professionals has enabled him to help organizations craft transformation strategies that deliver incremental and ongoing business value while managing risk and costs at each stage of deployment.

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Update

Business Architecture: Part III — Leveraging Value Streams in Business Transformation

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In Part I of this six-part *Executive Update* series on business architecture, we discussed the importance of executive sponsorship and leadership.¹ In Part II, we outlined how business architecture provides the means for shaping and communicating business strategy, transformation roadmaps, and funding models.² Here in Part III, we explore how to use value streams as a basis for deploying various business initiatives ranging from large-scale transformation efforts to near-term, high-payback tactical deployments. We discuss the use of value streams in improving productivity and enhancing the customer experience. Before we get into various case study examples, let's recap the role of the value stream in analyzing business challenges and crafting strategies for addressing those challenges.

VALUE STREAM'S ROLE IN PROJECT PLANNING, DEPLOYMENT

Part I introduced value streams, stating that a value stream depicts how “a business delivers end-to-end stakeholder value.” Because a value stream envisions value delivery across business units, product lines, and even organizational boundaries, value streams provide a way for all stakeholders to perform situation analysis, craft a common strategy, and implement that strategy based on a consensus-based solution. This is an essential planning concept when multiple, fragmented processes slow or hinder the delivery of stakeholder value.

Consider, for example, a customer of one set of products or services requesting information about, or help with, a

different set of products or services. It is not uncommon to find no recognition that an individual or organization is already a valued customer. Parallel, fragmented processes across various business units and product lines — along with different views of customer, account, and related information — alienates customers, business partners, and other stakeholders. Process improvement initiatives only deal with issues such as this from a silo-oriented perspective. Value streams, however, break down these silos so that the business can view a stakeholder in the same way that a stakeholder views the business — as a unified business entity.

With so much of business architecture's emphasis being on capability mapping, beginning initiative analysis and planning with the value stream may seem counter-intuitive, but value streams are an ideal starting point for business planning because of their stakeholder focus. While capability-driven planning enables a focused, synchronized approach to investment analysis, capabilities alone provide limited insights into stakeholder value analysis. Value streams, on the other hand, provide excellent insights into various aspects of the business from a stakeholder perspective.

If, for example, it is difficult for a customer to move through the end-to-end acquisition cycle for a product, then analysis, planning, and investment allocation can focus in on the Acquire Product value stream. This analysis perspective allows executives to balance tactical versus strategic options that deliver stakeholder value while ensuring that the inquiry-to-payment-and-collection cycle is efficient from an internal perspective. And because business architecture supports the concept of value stream/capability mapping, capability-based investments and priorities are determined based on which stages of a given value stream are top priority. In this example, if executives want to invest in common customer recognition, an early stage within the value stream, it would require establishing common pipeline management capabilities. The following case study examples offer insights into how value streams can enable the planning and deployment of tactical requirements and strategic business initiatives.

PROCESS STREAMLINING, BUSINESS PRODUCTIVITY IMPROVEMENT

In our first case study, we focus on using value streams for rapid situation analysis and resolution. A lack of a viable quality review process was the source of significant management concern. A quality review team had been established using manual and spreadsheet-based techniques, but a lack of automation limited the volume and effectiveness of the quality review process. Management wanted the process automated and expanded to cover more situations. The situation had been simmering for some time, and the lack of a solution made frustration grow.

The organization pursued two paths to a resolution simultaneously. The first approach involved traditional, use-case analysis, where a team of analysts spent several months crafting a set of requirements that involved replicating a silo-based portal and docket management application, customized to the needs of the QA analyst. The projected effort to implement this solution was estimated to run more than a year at a cost of several million dollars. In addition, the solution would be highly customized to a single stakeholder type, lack the ability to be easily adjusted to future-state requirements, and limit visibility into who was performing quality work on a given case at any given point in time.

In parallel with the traditional requirements-oriented approach, the business architecture team had mapped out business capabilities and major value streams for the business. The team called one value stream “Review Quality” and employed a counterproposal to use this value stream as the basis for establishing a quality review solution. The business team crafted a vision as follows:

- Any case may be pulled for quality review at any time with full transparency of any interested party.
- Any stakeholder, including managers across various business units, wishing to perform a quality review on any stage in the lifecycle of a given case may do so.

Automation requirements varied dramatically by value stream stage, but automating just a single stage of the value stream delivered a significant percentage of the automation required by quality reviewers. Solution

architects used the value stream and related vision and, working directly with the quality review team, created a rapid deployment solution for the stage that delivered more than 75% of the automation requirements for quality review analysts. The approach involved using agile analysis and deployment techniques to craft a new front-end environment that interfaced with back-end applications as required. Work previously done by spreadsheets was eliminated or automated based on an incremental rollout schedule. Through this initial deployment, which took less time than traditional use-case analysis, the business prioritized upstream and downstream stage automation, which aligned to the value stream vision.

Using the value stream/capability map established by the business architecture team, solution architects automated docket management, case file management, and other essential capabilities as dictated by each stage of the value stream. These capabilities became SOA services within the new architecture and would be reused across additional value streams as progress on related initiatives moved forward. As a result of this new value stream approach, the traditional proposal to replicate a legacy application leading to limited functionality was shelved. Benefits to the new value stream approach included:

- Faster delivery of a solution that leveraged new technology and avoided replicating stovepipe legacy solutions
- A more flexible solution that managers could leverage across multiple business units, as well as originally targeted quality analysts
- Delivery of a solution driven by the business vision and prioritized by stakeholder requirements
- Employment of a reusable case management approach that could then be applied to more complex value stream deployments over the long term

This case study demonstrates that value streams, in particular, and business architecture, in general, can be applied to tactical requirements that align with agile analysis and deployment approaches while establishing a foundation for longer-term, more strategic solutions. One additional benefit is that business architecture has

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the ability to shortcut traditional, cumbersome requirements analysis approaches that have been slowing down rapid deployment of business solutions.

CUSTOMER EXPERIENCE ENHANCEMENT

Our next case study focuses on enhancing the customer experience, which for many organizations is a strategic objective. This scenario involved a multiline financial institution with various different products, any of which a given customer could own. When customers contacted the organization, they were often not recognized as a valued customer. In addition, customers could not change their basic contact information and expect all business units and product lines to recognize them. Finally, there was little if any customer self-service. The challenges facing this organization were more far-reaching than a single business unit could address. The business required a more strategic approach.

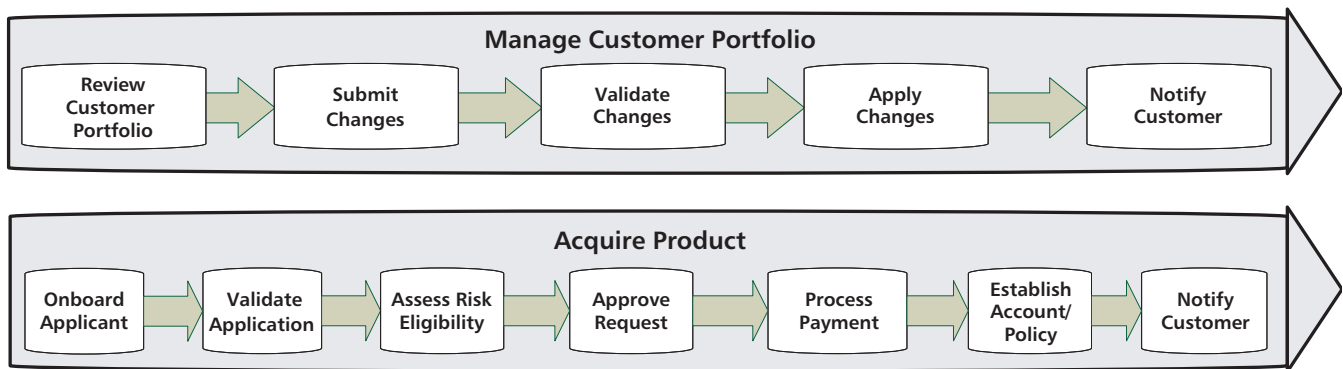
Having established a set of value streams and a capability map for the business, management set about using them to pinpoint where and how to address and prioritize major challenges. The goal was to focus on the biggest payback items first and then expand on various solutions for use on a more generalized basis. Management initially identified two value streams as top priority: Manage Customer Portfolio and Acquire Product (see Figure 1).

The first value stream focused on the management of customer information as well as the ability to see a customer’s portfolio of products. The second value stream would enable customers to acquire a new financial or insurance product. Note that “customer” is defined as any stakeholder that either owns or is in the process of establishing an account or policy. The following collectively summarizes the vision for these value streams:

- Customers are always recognized regardless of the number or type of products they currently own or owned in the past.
- Customer self-service is enabled to whatever degree is determined appropriate by corporate policy.
- Customers can view their product portfolio and modify customer-specific information at their own discretion and have it reflected across all business lines.
- Common user interfaces are enabled for internal and external stakeholders with levels of access managed by the authorization level of the user/stakeholder.

Additional customer-facing value streams, not shown in Figure 1, include Maintain Account and Process Claim/Default. These value streams should also adhere to the above vision statements. The current-state IT architecture did not align to this vision and significant technology changes would be required to ensure that account management, customer management, and claims/default management capabilities aligned to this new vision. The value streams, however, provided executive teams with a foundation for considering a long-term vision for improving the customer experience.

Priorities for improving the customer experience, which initially focused on these two value streams, involved the simple routing of customer requests to all product lines, customer recognition, common customer notification, portfolio viewing, and a common approach and interface for the Acquire Product value stream. Solution architects, when considering the common business capabilities shared by the Review Customer Portfolio stage of the Manage Customer Portfolio value stream and the Onboard Applicant stage of the Acquire Product value stream found that pipeline management capabilities were required for both value streams. As a result, the project evolved along the following steps:



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Figure 1 — Manage Customer Portfolio and Acquire Product value streams.

1. Establish a common interface that can be shared across all value stream deployments.
2. Architect a “case management” framework as an implementation strategy for each value stream.
3. Leverage the capability map to create a shared data model, establishing a common view of customer information across a customer’s portfolio.
4. Deploy each stage of the Manage Customer Portfolio value stream, automating the user interface and requisite capabilities for each stage, left to right.
5. Expand usage across business units, gradually replacing or displacing current-state front-end views.
6. Reuse deployed capabilities, where applicable, to repeat this deployment cycle for the Acquire Product value stream.

The above steps summarize the major concepts to be employed, but an actual vision and roadmap would involve significant planning and be developed to a much greater degree of detail. This would include planning and budgeting concepts, which we discussed in Part II of this series. It is important to note, however, that these types of projects build upon a common business and IT architecture, leveraging automated capabilities and value stream deployments in building block fashion.

SUMMARY

We discussed two case study approaches to using value streams in planning and deploying priority business initiatives. The first example, involving a Review Quality value stream, demonstrated how value streams can enable rapid deployment of tactical requirements. This case study showed how business architecture can help shorten and streamline traditional business requirements analysis by providing a common baseline from which to build out tactical solutions to pressing business challenges.

The second case study, involving the Manage Customer Portfolio and Acquire Product value streams, showed how value streams can be used to incrementally deploy larger-scale, more strategic projects. In this example, value streams provided an overall framework that management could use to craft a case management strategy, create a phased deployment plan, and prioritize business capabilities that could be automated within an SOA and orchestrated across various value streams.

In Part IV, we will discuss the use of the capability map in establishing an underlying foundation for long-term, robust business solutions. This discussion will include how to use the capability map to establish a business-driven data architecture and application architecture.

ENDNOTES

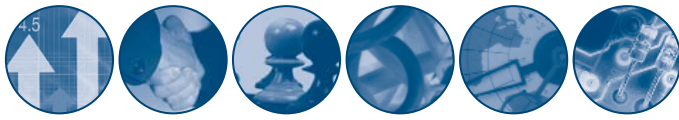
¹Ulrich, William. “Business Architecture: Part I — Why Business Architecture Matters to Business Executives.” Cutter Consortium Enterprise Architecture *Executive Update*, Vol. 14, No. 7, 2011.

²Ulrich, William. “Business Architecture: Part II — Business-Driven Transformation Strategies, Roadmaps, and Funding Models.” Cutter Consortium Enterprise Architecture *Executive Update*, Vol. 14, No. 8, 2011.

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Business & Enterprise Architecture
Executive Update Vol. 14, No. 10

Update

Business Architecture: Part IV — Building a Robust Foundation for the Future

by William Ulrich, Senior Consultant,
Cutter Consortium

In Parts I and II of this six-part *Executive Update* series, we discussed the importance of executive sponsorship and outlined how business architecture provides the means for shaping and communicating business strategy, transformation roadmaps, and funding models.¹ Part III explored using value streams as a basis for planning and deploying various business initiatives.² Here in Part IV, we examine how capabilities, introduced in Part I, form the foundation for fusing business and IT through a shared vocabulary, vision, and transformation strategy.

BUSINESS CAPABILITY ESSENTIALS

Capabilities form the core of the business architecture because they enable organizations to succinctly state what the business does, regardless of location of work (or who does it), which stakeholders participate in or benefit from that work, or the types of technologies that enable it. The benefit of defining capabilities independently from other business views is that business issues or limitations can be identified objectively and without conflating issues such as politics or technological weaknesses into the discussion. As a result, we can eliminate many of the struggles related to a lack of cohesion and concurrence of requirements across business units, the inability to determine how to deploy a given capability, or even basic definitions of what a business does.

For example, a manufacturing company seeks to improve product innovation, but the capabilities to assess future market demands and then respond to them are lacking. An examination of the product management

capability determines that the enterprise has little knowledge of innovation concepts, limited international reach, sparse market research, and fragmented market analysis and planning operations. Focusing on improving these capabilities involves determining cross-functional objectives, impacts, and benefits across product lines and business units. The goal would be to establish a common set of disciplines to address innovation, including researching, planning, aligning strategic partnerships to advance capabilities, and then determining if and how automation can further enable them. Improvements may be addressed independently or in conjunction with organizational change.

This example demonstrates how capability-based analysis allows management to focus investments across business units and product lines. Organizational mapping provides insights into which business units should participate in the analysis, planning, and deployment of a new capability. If business partners are to be engaged, they would also be identified as crucial to the planning and rollout of any solution. Should technology be required to enable these capabilities, then IT would be engaged as necessary to provide appropriate automation solutions.

A clear definition of each capability is a prerequisite for this analysis. Once the capability map is in place, stakeholders can identify weaknesses across the board and identify ideal capability requirements for the product innovation capability. This type of coordinated analysis and planning is a rarity in organizations because management often lacks visibility into basic business capabilities. Capability-based analysis also tends to force coordination across business units that may try to seek product innovation solutions on their own, even though the organization may be better off with a cohesive innovation capability.

CAPABILITY-BASED SITUATION ANALYSIS AND RESOLUTION

When we introduced the use of value streams in Part III, we explained their importance in establishing strategies and priorities focused on stakeholder value. One way to contrast capabilities and value streams is to

think of the capability map as showing the business “at rest” while value streams show the business “in motion” because value streams move from left to right. These two views collectively provide a multidimensional lens into a business that enables situation analysis, planning, and roadmap development.

Capabilities define the *essence* of the business. And while value streams define how to achieve stakeholder value and align business process and case management strategies, capabilities provide the foundation that allows a value stream to deliver value at each stage. Consider, for example, the Acquire Product value stream introduced in Part III. Figure 1 depicts this value stream, the related business process/user interface automation plan, and selected business capabilities required to enable each stage of the value stream to deliver stakeholder value.

Each stage in Figure 1 — Inquiry, Apply for Product, Accept Application, Register & Deliver Product, Notify Customer, and Manage Payment — requires certain business capabilities to deliver stakeholder value. The figure shows how business capabilities enable each stage within a value stream to deliver stakeholder value, allowing the value stream to move to the next

stage. All the value stream–related guidelines and concepts discussed in Part III still apply, but Figure 1 demonstrates how capabilities complete the picture.

Capability-based planning leverages value stream–driven priorities to determine where to apply resources and in what priority. If, for example, product registration was the value stream’s weak link, then analysts would determine why that stage was weak, which would include assessing if the capabilities enabling this stage were acceptable or required attention. In this case, the Account Update, Financial Update, and Product Ship capabilities become the target of examination as to their effectiveness.

If you establish a capability “heat map,” capabilities could be color-coded to identify how well or how poorly they are performing. A capability heat map uses the color red to signify significant issues, yellow to signify capabilities working below par, and green to signify acceptable levels of performance. If any of the capabilities enabling the Register & Deliver Product stage of the value stream in Figure 1 were red or yellow, the business would determine requirements for taking these capabilities from red to green. For example, if the Product Ship capability within fulfillment was the

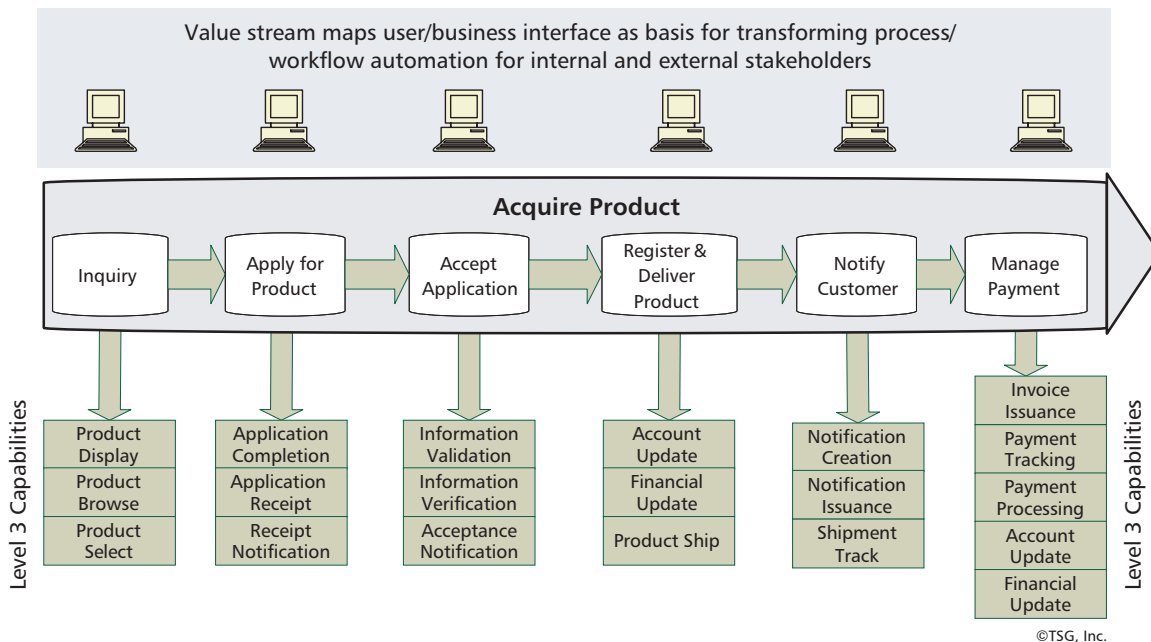


Figure 1 — Value stream stages mapped to enabling business capabilities.

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roadblock in the value stream, the business may specify that this capability should be able to reduce shipping time to an acceptable level, across all product lines and business units. In addition, any other value stream that relies on the Product Ship capability would similarly benefit from these improvements.

In practice, several higher-level capabilities that decompose into dozens of lower-level capabilities often enable a given stage. Situation analysis requires a careful and systematic narrowing of various issues to a lower and lower level, pinpointing exactly where problems lie. In the Figure 1 example, it may boil down to an inability to bundle a shipment because cross-product line synchronization is poorly coordinated. In this case, Shipment Bundling (a lower-level capability beneath Product Ship not shown in Figure 1) may be the capability in question. A solution could involve organizational changes, synchronizing processes or case management across business units or product lines, and adding automation to fully enable this capability. Improving a given business capability may not require further automation, but it often does. The most important step, however, is to pinpoint the agreed-upon capabilities that require improvement or, in some cases, a new capability.

Note that because most businesses are surviving at some level, most capabilities are already in place from a business perspective, even if those capabilities are functioning well below par. A completely manual capability opens up a low-hanging fruit for automation teams, but automating a capability does not mean that it is a new capability, only one that had never been automated. This distinction is simple, if you view capabilities from a business perspective. In addition to situation analysis and resolution, capabilities also provide the basis for more strategic planning and transformational development.

BUSINESS CAPABILITIES AND TRANSFORMATION PLANNING

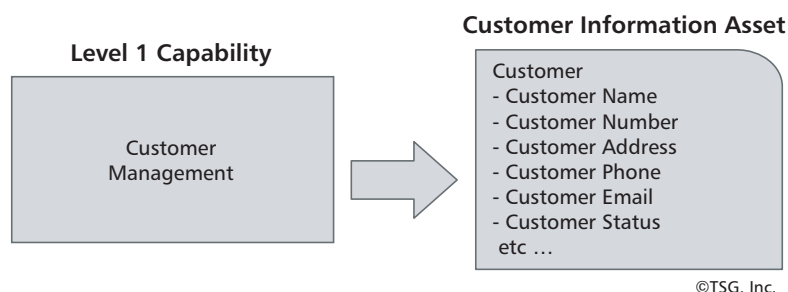
Business capabilities provide significant value to an organization when structural or systemic challenges

require large-scale transformation, particularly when those challenges cross business-unit or organizational boundaries. Large-scale change inevitably impacts multiple customer-facing capabilities and value streams. (Part III discussed the use of value streams to plan and implement major transformational changes as it relates to the customer experience.)

Customer experience from a portfolio and customer information management perspective can be improved to some degree through process improvement and automation, but long-term systemic solutions require aligning customer information across product lines and business units that share common customers. In addition, automation solutions must align to and consolidate common customer management capabilities, including product portfolio viewing and customer information management. Capabilities and related business vision drive automation requirements and help shape data and application architectures in ways that have proven historically difficult due to lack of formalization of the business architecture.

For example, a capability map with related capability definitions serves as a foundation for strategic data architecture. Each Level 1 capability should have a corresponding information asset that serves as the prime information impacted by that capability. Figure 2, for example, depicts Customer Management, a Level 1 capability that relies on the Customer information asset. Customer information is the prime information asset for this capability because it is established and modified when this activity is active. Other information assets may be used by a Level 1 capability, but capability/information alignment is based on vocabulary alignment and degree of impact.

For example, an Account Management capability must use the same definition of “Account” as the Account information asset. This may sound like a simple concept, until a business strategy requires ensuring that the Customer Management capability and corresponding Customer information asset are synchronized across



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Figure 2 — A Level 1 capability used to define an information asset.

all business units that leverage this capability. Such a strategy requires IT to put away all the smoke-and-mirrors techniques it has been using to *guess* which customer owns a portfolio of products or to *approximate* what a custom portfolio contains. Such a strategy impacts core data architectures. Consequently, the business has a clear way of communicating this strategy back to IT, which has been much of the battle in gaining a foundation for data architecture work in the past.

In one case study example, the business architecture team walked the data architecture team through a capability map over the course of several working sessions. The conceptual data model that resulted had a robust, comprehensive business foundation, which the data architecture team could use to evolve the model into more detail based on traditional techniques. Arguments over what defines an “Account” or a “Customer” were all settled by the business during the capability mapping effort.

The capability map has an equally profound impact on application architecture through current-state and target-state capability-to-application mapping. Once you identify and prioritize a set of capabilities for improvement, IT and the business can jointly determine related requirements, project priorities, and deployment strategy. High-priority capabilities, often based on value stream analysis, are then targeted to become new services or to be improved upon through the modernization of current-state applications. IT architects have a significant degree of latitude under this approach because the business is only stating what should be deployed and when, rather than dictating the systems to be used, built, modernized, or licensed. This moves IT back to its core strength — dealing with IT architecture — and away from guessing what the business wants.

SUMMARY

Capabilities provide the vocabulary and formal reference point for a business to clearly state what’s working, what’s not working, and what should be prioritized for improvement. Capabilities may be prioritized on an individual basis (common for resolving more tactical issues) or driven by value stream priorities (common for strategic transformation initiatives). Capabilities not only form the basis for evolving strategic data architectures but also serve as the foundation for defining service design and deployment requirements and priorities. Capabilities, when mapped directly to current-state application architectures, also serve as a guidepost to application modernization strategies.

In Part V, we will provide a rapid roadmap approach for establishing business architecture as well as socialization and utilization approaches.

ENDNOTES

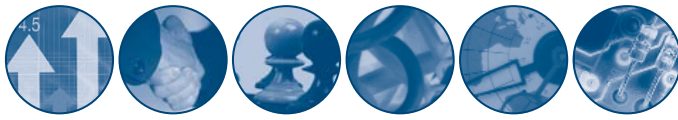
¹Ulrich, William. “Business Architecture: Part I — Why Business Architecture Matters to Business Executives.” Cutter Consortium Business & Enterprise Architecture *Executive Update*, Vol. 14, No. 7, 2011; Ulrich, William. “Business Architecture: Part II — Business-Driven Transformation Strategies, Roadmaps, and Funding Models.” Cutter Consortium Business & Enterprise Architecture *Executive Update*, Vol. 14, No. 8, 2011.

²Ulrich, William. “Business Architecture: Part III — Leveraging Value Streams in Business Transformation.” Cutter Consortium Business & Enterprise Architecture *Executive Update*, Vol. 14, No. 9, 2011.

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Update

Business Architecture: Part V — Team Building Through Deployment

by William Ulrich, Senior Consultant,
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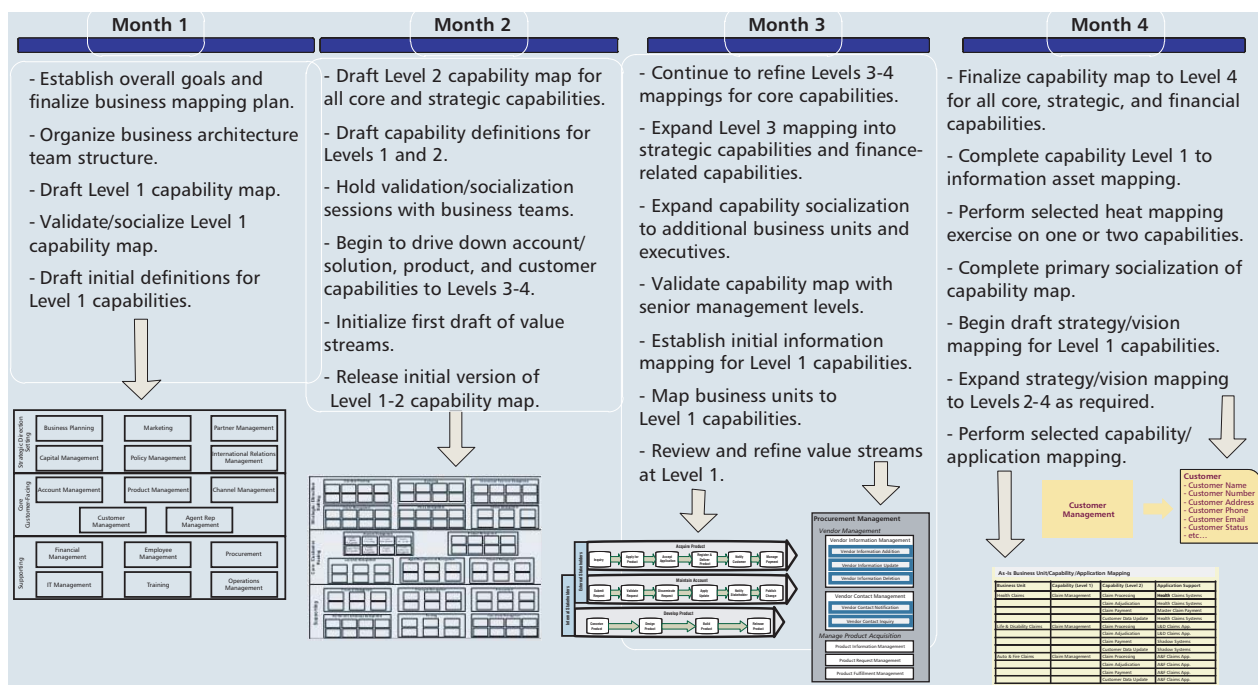
In Parts I-IV of this *Executive Update* series, we discussed how business architecture provides the means for shaping and communicating business strategy, transformation roadmaps, and funding models; how to use value streams as a basis for planning and deploying business initiatives; and how capabilities form the foundation for articulating a shared business vocabulary.¹ Here in Part V, we outline how to establish and socialize the business architecture, including introducing a rapid roadmap

deployment approach that business architecture teams can use as a template for getting started.

RAPID ROADMAP TO BUSINESS ARCHITECTURE

The first step in establishing your business architecture involves creating a roadmap and estimated timeline. Figure 1 depicts a roadmap for expedited business architecture deployment. This is an “expedited” roadmap because this timeline represents a best-case scenario for many midsized-to-large organizations. For larger or more geographically dispersed enterprises, the timeline will likely be longer. Organization size and geographical dispersion elongate the time it takes to (1) organize the mapping team, (2) map the business architecture, and (3) validate and socialize the results.

The roadmap in Figure 1 highlights several phases of business architecture deployment ordered in an ideal scenario. Deliverables, shown along the bottom, include increasingly detailed capability maps, value streams,



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Figure 1 — Business architecture deployment roadmap.

organization mappings, and an information map. An intensive capability mapping effort follows team organizing, which often runs well into month three. Teams can continue to add refinements and additional detail to a capability map for a number of months, but the baseline should be in place in month three or four. The depth and breadth of capability mapping is reliant on several factors, including strategic initiatives driving the analysis, executive demands, and concerns related to key capabilities such as customer management or account management.

For example, if product research needs to be improved in some way, then the business architecture team would pursue a more intensive and in-depth analysis of the capabilities enabling the Develop Product value stream. Similarly, if customer-facing challenges drive the analysis, then the team would focus on driving customer-facing capabilities such as account management and customer management to greater levels of detail. The four-month roadmap in Figure 1 assumes that certain capabilities will be driven down to a significant degree of detail, while other capabilities will only be decomposed to Levels 2 or 3. Subsequent activities, which have a natural overlap with capability analysis, include organization or business-unit mapping, value stream analysis, and information mapping. Figure 1 shows this overlap.

Consider the following scenario: a company has struggled to move products through the research pipeline and into the marketplace. The problem was systemic across numerous research teams, which were organizationally and geographically dispersed. The Develop Product value stream, along with the enabling research, procurement, and marketing capabilities, pushed the business architecture team to focus on these areas as a top priority. Consequently, the team created a heat map analysis of essential capabilities and came up with a set of recommendations on how to resolve roadblocks in the value stream. In this example, a very specific mandate from management drove business architecture analysis, resulting in an action plan that would deliver new products to market more quickly and more effectively.

In this research-related example, management had already attempted to streamline various business processes within each of the dozens of research units.

While this delivered some incremental benefits within each business unit, the company lacked a solution that enabled the organization as a whole to deliver research more quickly and effectively to market. The business architecture approach ensured that capabilities were improved across the value stream in a way that each research team could ultimately leverage.

BUSINESS ARCHITECTURE TEAM BUILDING

Business architecture team organization is a critical step in establishing the business architecture and one of the first steps shown in Figure 1. Team setup must be done with careful consideration because it influences the quality and usability of the resulting business architecture. One major issue to consider is that of staffing the team with mostly IT personnel or primarily business professionals. For example, if an enterprise architecture team that reports up through IT builds a capability map based on what these individuals “think” the business looks like, then the map will not only be of little use but the business will likely ignore it completely. Such a capability map will be viewed as just another IT artifact.

As such, the business architecture team should be comprised of businesspeople from diverse business areas who have the ability to clearly articulate what the business does and how it achieves stakeholder value using a shared business vocabulary. These individuals must have a direct line to business executives as well as access to the broader business community. Business professionals can serve as team leaders and as business architects, but often require packaging support from IT architects and mentoring from a business architecture expert. The comparative case study examples discussed in the next section demonstrate how a team comprised mostly of businesspeople can deliver a high-quality, deployable business architecture more effectively than a team comprised largely of IT architects.

Team building in a small-to-midsized enterprise can rely on a “direct representation” team structure. Direct representation requires each major business unit to assign a business architecture team representative. In addition, business co-leaders should be selected by the team or by executive sponsors. The entire team will need to craft the Level 1 capability map and first drafts

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of the value streams. As work progresses into more detailed mappings, as shown in Figure 1, a subset of participants can work on selected capabilities and value streams. However, the entire team must still validate and help socialize the aggregate results.

In larger organizations, a “tiered team structure” is required to ensure that equitable representation is in place for various business areas, particularly as these teams may be large, aligned into different business units, or geographically dispersed. The tiered participation structure takes longer to establish because it requires defining tiered teams, typically aligned to capabilities shared across different business units. For example, claims workers from different insurance lines of business may comprise one team, while individuals responsible for administration would address capabilities related to billing and enrollment. Care and time should be taken to ensure that the degree of representation is functionally representative across major capabilities and value streams.

Figure 2 shows how a tiered team structure may be established. The inner circle represents the core team. The core team is similar to the direct team structure previously discussed, with the exception that each direct team member represents a larger body of participants

comprised of representatives from various business units. The arrows from the business units to the inner circle team illustrate how representatives from various business areas participate in the business architecture team. For example, if the first business unit on the bottom left-hand side of Figure 2 was a research division, multiple research teams may be engaged and represented as a research “core team.” This core team would work on research-related capability and value stream definitions and in turn send a representative to work on the core team at the top of Figure 2. This team-organizing approach accommodates various diverse business units as well as geographic dispersion across very large enterprises.

The outer concentric circle in Figure 2 represents horizontal and strategic business stakeholders. For example, strategic planning, government relationship management, investment management, marketing, and public policy management represent business capabilities that require feedback from business executives. Team structure should be established up front, as shown in Figure 1, and accommodate the size and complexity anticipated in a business architecture initiative. Two case study scenarios in the next section demonstrate the criticality here.

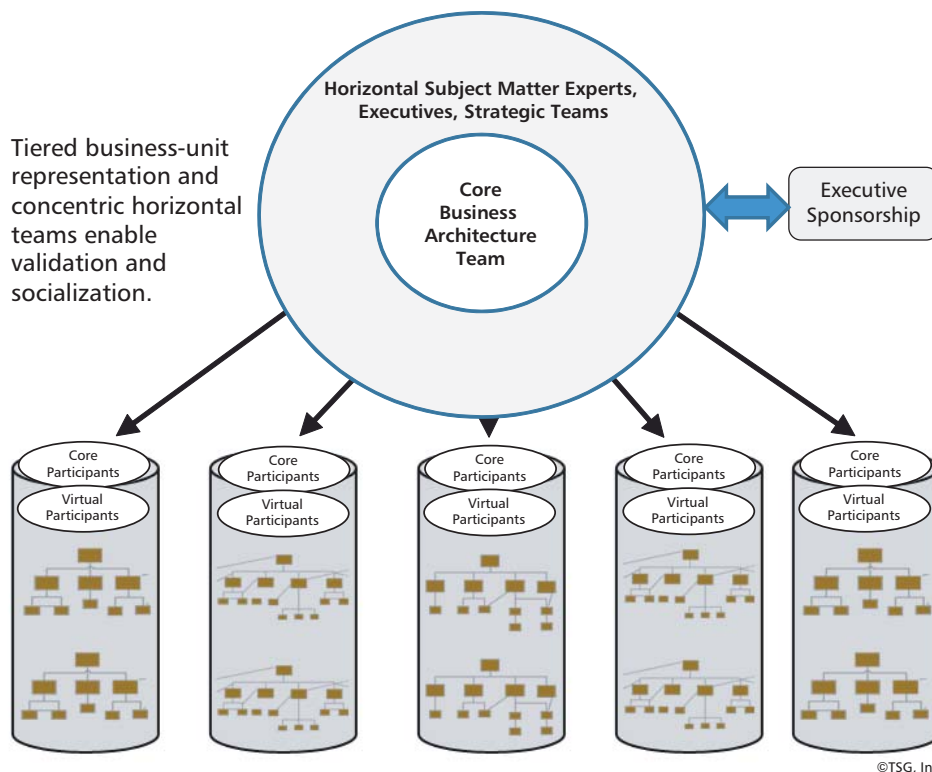


Figure 2 — Establishing a tiered team structure.

ITERATIVE EVOLUTION AND SOCIALIZATION OF BUSINESS ARCHITECTURE

Let's examine two scenarios that two different organizations pursued to create a capability map and value stream maps, as well as information and organization mappings. Both teams had strong executive sponsorship — a prerequisite for any business architecture effort — but the resulting outcomes were quite different.

In the first example, enterprise architects reporting up through the IT organization largely comprised the business architecture team. There were a couple of business team participants, but the business teams providing input and review often viewed the business architecture team as a team of IT architects with some business support. While the resulting maps offered a reasonably good representation of the business, there was little buy-in by business teams due to lack of business participation and because validation and socialization efforts did not extend across the business stakeholders.

Consequently, the business did not buy in to the new vocabulary to the degree required, meaning that strategic planning, issue analysis, requirements analysis, and various other business engagement activities would not use the vocabulary established within the business architecture. This was primarily due to limited business participation on the business architecture team; as such, it was not truly a business vocabulary. The team had to retrench, rebuild executive support, and resocialize the results across various business units, only this time with more business participation.

A second example involves a similarly sized enterprise that underwent careful business team selection, driven by the business executives sponsoring the analysis effort. The team had representation from all major business units as well as access to related business units through executive sponsorship and inherent knowledge of the overall environment. While the mapping time for this project was similar to that in our first example, the degree of socialization achieved by this team was far superior to the team that was primarily comprised of IT architects.

When it came to leveraging the business architecture in a strategic transformation initiative aimed at improving customer service and customer visibility, the results were striking. Business executives in this second example established a succinct business vision and corresponding set of priorities using value stream and capability-specific terms. By month three of the project, the business could utilize results, with data architects creating a strategic data architecture and solution architects quickly

establishing an overall approach for simplifying how customer accounts moved through request and change cycles.

The successes achieved in this second example can be directly attributed to getting the business on board with a shared vocabulary based on its direct knowledge and involvement in the business architecture initiative. This in turn enabled management to articulate an unambiguous vision and related priorities in rapid fashion with a comfort level where everyone knew what was being requested and how it was to be prioritized. This all stemmed back to the structure and makeup of the business architecture team.

SUMMARY

In this *Update*, we saw how several important factors are required to establish the business architecture, and that success stems from having the proper business architecture team structure established at the outset. A business architecture team that is primarily comprised of business professionals who equitably represent a cross-section of the business will produce a higher-quality, more deployable business architecture than a similar team of IT architects. While IT architects can build what on the surface appears to be a valid business architecture, the business will struggle with and often reject the resulting business mappings and vocabulary. Time should be spent up front to ensure that the right team is in place before launching a project.

Part VI, the final installment in this series, will discuss how to use the business architecture to perform analysis, meet executive demands, and deliver strategic transformation initiatives.

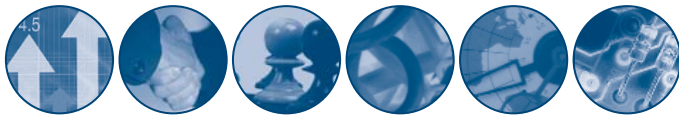
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¹Ulrich, William. "Business Architecture: Part I — Why Business Architecture Matters to Business Executives." Cutter Consortium Business & Enterprise Architecture *Executive Update*, Vol. 14, No. 7, 2011; Ulrich, William. "Business Architecture: Part II — Business-Driven Transformation Strategies, Roadmaps, and Funding Models." Cutter Consortium Business & Enterprise Architecture *Executive Update*, Vol. 14, No. 8, 2011; Ulrich, William. "Business Architecture: Part III — Leveraging Value Streams in Business Transformation." Cutter Consortium Business & Enterprise Architecture *Executive Update*, Vol. 14, No. 9, 2011; Ulrich, William. "Business Architecture: Part IV — Building a Robust Foundation for the Future." Cutter Consortium Business & Enterprise Architecture *Executive Update*, Vol. 14, No. 10, 2011.

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Update

Business Architecture: Part VI — Enabling Innovation and Business Model Transformation

by William Ulrich, Senior Consultant,
Cutter Consortium

In Part II of this *Executive Update* series, we introduced the business-driven transformation roadmap.¹ This roadmap differs from a typical project roadmap because it focuses on transforming how organizations deliver stakeholder value and improving underlying business capabilities from a business, versus IT, perspective. Here in Part VI, the final installment of the series, we discuss practice-based approaches to delivering innovative, actionable, and highly effective business solutions.

Value streams and capabilities collectively provide the baseline that enables a business to visualize, articulate, and prioritize a wide range of requirements across various business scenarios. The particular scenario we

will use here to define actionable solutions involves moving from a product line-centric business model to a customer-centric model. Customer centricity has become a priority for executives seeking to streamline customer value delivery across redundant, poorly synchronized business units. This *Update* focuses on bringing customer and transactional transparency to key stakeholders when and where required. This scenario additionally promotes delivering customer-focused innovations while reducing design- and implementation-related complexities required to achieve such a strategy.

LEVERAGING BUSINESS ARCHITECTURE IN ESTABLISHING INNOVATIVE BUSINESS DESIGNS

Consider the three value streams shown in Figure 1 illustrating three critical value delivery views: Acquire Loan, Manage Loan Change Request, and Process Loan Default. At any point in time, a customer may have multiple loans for various product lines across different business units. This is not uncommon, even in small-to-midsized enterprises, and the issue of managing multiple views is not isolated to loan management, or even financial institutions. A provider of communications services, for example, often sends multiple service

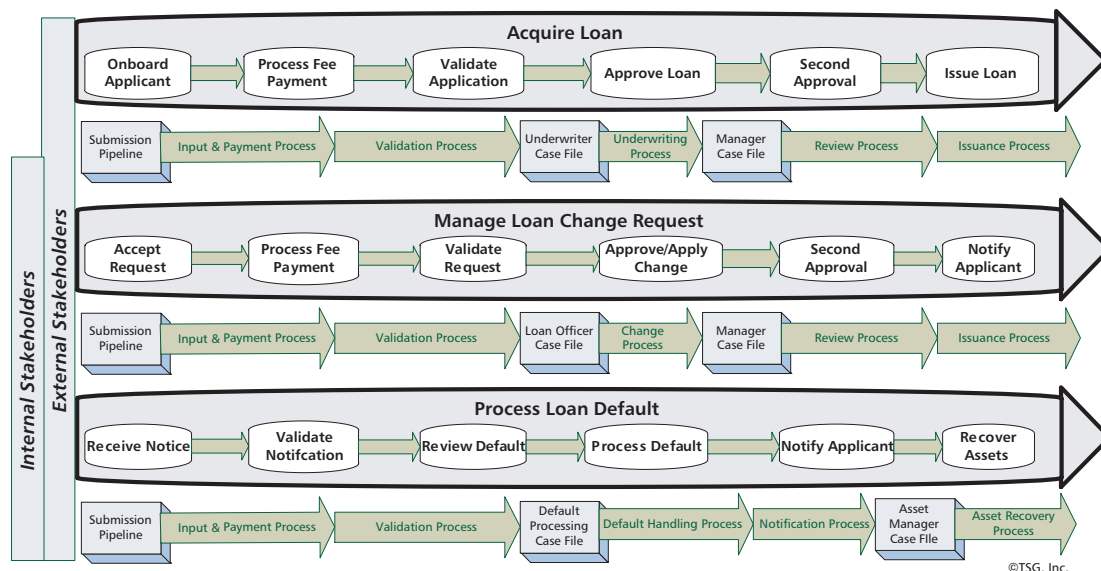


Figure 1 — Three loan value streams.

trucks to a customer site for cable work, Internet adjustments, and telephone problems when one service team could accomplish these same tasks. While the communications and loan examples highlight a lack of transparency in dealing with customers, similar examples run across a wide variety of industries.

In another communications company example, a customer cancelled all landline, mobile, cable, and Internet services due to poor treatment received in relation to the use of a phone card. In this case, there was a lack of visibility showing that this customer held multiple accounts for various products. Losing a single customer may be of minimal impact, but treating hundreds of thousands of customers in this fashion will have a detrimental impact on the bottom line. The fact is that businesses are running blind, losing customers and market share, and struggling to shift toward customer-centric business models.

Organizations seeking customer centricity often go straight to a technical solution, thinking that cloud architectures, SOA, the latest software package, or another US \$100-million project will solve their business problems. But business challenges require business solutions. In this case, the solution involves stakeholder and transactional transparency along with the ability to address competing, conflicting, or otherwise simultaneous transactions, activities, and customer interactions. While technology will certainly be part of the solution, technology in the absence of a well-articulated business strategy will not deliver a viable result. Business architecture provides the framework for envisioning and articulating business strategy.

HARSH REALITIES OF RUNNING BLIND

The three value streams in Figure 1 enable a business to envision simultaneous, conflicting scenarios within a financial institution that issues and manages loans. In this example, a customer holding a loan may have encountered a situation where it defaulted. That customer, upon receiving notice of default, seeks to modify the loan and resolve the situation before losing his home. The customer requests a restructuring of the loan, triggering the Manage Loan Change Request value stream. While the customer request moves

through a series of underwriter reviews and approvals, the Process Loan Default value stream continues to proceed through the default, notification, and asset recovery stages of this value stream. A lack of transparency across business units results in the customer losing his home, even though the defaulted loan was being restructured.

Losing your home when you thought the mortgage company was working in good faith is a harsh reality for the customer — as well as the company holding the mortgage. Asset management for assets recovered in loan defaults is not a capability that many financial institutions are good at, or truly embrace. While the process treated the customer harshly, the mortgage company is now stuck with a house it must figure out how to unload — all because one set of stakeholders ran blindly through one value stream while another set pursued a conflicting course, resulting in default.

Traditional approaches to achieving customer centricity typically involve modeling a given process from end to end, attempting to address situational complexities, parallel movement of a case, and exception handling that can occur across multiple value streams. In a small organization, this may be appropriate. But in a large, multidivisional, and multiproduct line enterprise, predictive end-to-end process modeling loses its ability to predictably envision and accommodate every scenario and exception that can arise across product lines. As a result, executives throw up their hands and claim that solution deployment teams are trying to “boil the ocean.”

Frustration then results in curtailing project scope, which leads to silo-oriented solutions. While the implementation may be more manageable, silo-based deployments constrain transactional transparency and restrict the ability to move toward customer centricity. In reality, these challenges only appear complex because management has no framework from which to view the situation and envision an actionable strategy. Viewing solutions through the complex lens of predictable process modeling prevents executives from strategizing in the best manner. Various solution options become apparent, however, when one views it through the lens of business architecture.

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BUSINESS SOLUTIONS: ADDRESSING COMPLEXITY THROUGH THE LENS OF SIMPLICITY

The value streams in Figure 1 allow management, planning teams, and analysts to envision the dynamics associated with the creation, evolution, and end-of-life of a loan. The goal is to achieve complete visibility of a given loan transaction at any point in time, regardless of the actions being applied to that loan by one or more stakeholders. As a result, a product line manager or underwriter in a different business unit can readily see that a customer has had multiple loan defaults and terminated contracts for other financial services involving that customer.

One way in which analysts can apply value streams to envision options for achieving customer centricity through transparency is to augment these views with business design views. For example, Figure 1 shows value streams augmented with stakeholder in-boxes or “dockets.” Each docket is associated with various stakeholders involved in delivering value at that stage of the value stream. For instance, the state of a particular account or case immediately makes that account appear within an underwriter’s docket. For clarity, we further augmented the views in Figure 1 with processes that each value stream stage may dynamically trigger, depending on the overall situation at the time. We commonly find these concepts in the business concept entity called “case management.” Case management is “a method or practice of coordinating work by organizing all of the relevant pieces into one place — called a case.”²

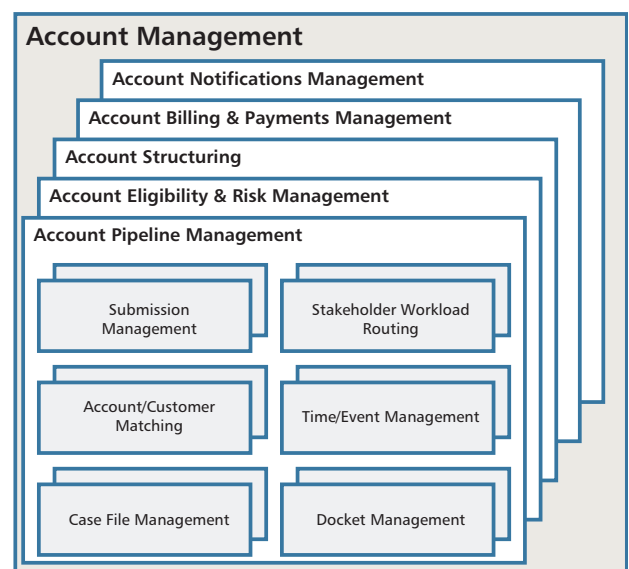
The value stream views in Figure 1 enable managers and analysts to (1) articulate how they want to deliver stakeholder value across multiple stakeholder and business unit views; (2) communicate this vision; (3) manage concurrent, simultaneous loan or customer transactions; and (4) design innovative solutions. One such solution involves the business concept of case management, which we can apply to our customer-centricity scenario. For example, case management concepts deliver visibility across the value streams in Figure 1 by ensuring completely visible views of a loan or a “case,” regardless of its previous state or which stakeholder is currently viewing or changing it. The result in our loan default example is that default processing freezes during the restructuring of a loan, ultimately saving the customer and avoiding losses on all sides.

The concept of case management solutions requires deploying certain basic capabilities. Figure 2 depicts a Level 1 capability called “Account Management.” This

capability incorporates numerous lower-level business capabilities required to establish, evolve, change, analyze, and terminate a case, or, in this example, a loan. The Account Management example shown in Figure 2 contains five Level 2 capabilities, including Account Pipeline Management through Account Notifications Management.

How do these capabilities come into play in the context of our value stream—envisioned design to address customer centricity and transactional transparency, in all situations for all business units? As we discussed in Part IV of this series, capabilities enable value stream stages. For example, as illustrated in Figure 2, Account Pipeline Management, the first Level 2 capability, decomposes into various lower-level capabilities required to address pipeline management (e.g., Submission Management). In this scenario, we define Pipeline Management as the ability to offer, accommodate, validate, and route any incoming communications from any external stakeholder, regardless of product line or request type. These capabilities are essential to ensure that a case, account, or, in this case, a loan is visible across all value streams and in the right docket for the right stakeholder at any given point in time.

Level 3 capabilities under Pipeline Management, as highlighted in Figure 2, are essential to receiving and processing all inbound communications. For example, Stakeholder Workload Routing, Case File Management, Docket Management, and Time/Event Management ensure an account is available when required, to any



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Figure 2 — Account Management capability, with Account Pipeline Management decomposition.

given stakeholder, at any given time. Using this conceptual view, analysts and architects can craft dramatically simplified, yet highly effective solutions to complex business requirements. For example:

- An account may only be accessible for change within one value stream stage and within one stakeholder docket at any given time.
- An account may be viewed by any stakeholder at any given point in time.
- An account entering the Process Loan Change Request value stream automatically freezes access to that account within the Process Loan Default value stream.

Other rules may be applied to these views, but in this way the business gains visibility and insight into the concurrent activities as applied to an account, loan, contract, policy, trip, or other type of case file, as it applies to a customer.

FROM BUSINESS DESIGN TO ACTIONABLE DEPLOYMENTS

With these views and rules in hand, solution architects can craft highly innovative solutions to the customer-centricity challenge. The implementation of the case management approach involves several key factors, including:

- A robust, business-driven data architecture based on the information views introduced in Part I of this series
- Case management deployment technologies that typically include a rules engine, ability to manage dockets or in-boxes, and ability to generate automated workflow where required
- Consistent, user-centered design for user front ends that ensure accessibility and ease of use for frontline business users
- State management design models that enable visibility, movement, and protection of a given case based on any combination of scenarios, under all possible business rules
- Depending on the degree of complexity and redundancy associated with current-state application and data architectures, the ability to establish a parallel “shadow” architecture to enable this new case management environment to evolve using agile, incremental deployment techniques

There are clearly numerous challenges to building out the deployable solution within the context of this scenario. Without the clarity delivered by the business architecture and business-driven design strategy, solution deployment teams would have little hope of tackling this challenge. As solutions emerge, technical architects can begin to envision if deployments should leverage cloud computing or other options as an ultimate implementation platform.

While this example involves loan management, value streams are generalized depictions of stakeholder value delivery across all product lines, business units, or even partner boundaries. The ability to generalize value streams across various business offerings and organization boundaries offers solution analysts and architects a powerful vehicle for determining how to begin to shift a business model toward customer centricity.

SUMMARY

In this six-part *Update* series on business architecture, we explained why business executives should embrace the concept of business architecture and take ownership while sharing accountability for future-state strategies and opportunities. We discussed how value streams and capabilities, along with information and organization mappings, provide the baseline for crafting common semantics in a defined set of frameworks for articulating current-state challenges and a business vision. Finally, we showed how business architecture does not presuppose process-centric or other business design solutions as the way to solve every problem. Rather, business architecture provides ways to view your business that inspire planning teams, analysts, and architects to craft innovative solutions to major business challenges.

ENDNOTES

¹Ulrich, William. “Business Architecture: Part II — Business-Driven Transformation Strategies, Roadmaps, and Funding Models.” *Cutter Consortium Business & Enterprise Architecture Executive Update*, Vol. 14, No. 8, 2011. For the remainder of this series, see: Ulrich, William. “Business Architecture: Part I — Why Business Architecture Matters to Business Executives.” *Cutter Consortium Business & Enterprise Architecture Executive Update*, Vol. 14, No. 7, 2011; Ulrich, William. “Business Architecture: Part III — Leveraging Value Streams in Business Transformation.” *Cutter Consortium Business & Enterprise Architecture Executive Update*, Vol. 14, No. 9, 2011; Ulrich, William. “Business Architecture: Part IV — Building a Robust Foundation for the Future.” *Cutter*

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