BUSINESS ARCHITECTURE: PROBLEM IDENTIFICATION
THE FOUNDATION FOR ROOT CAUSE ANALYSIS

A Business Architecture Guild® Real-World Case Study

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Wells Fargo & Company (NYSE:WFC) is a leading financial services company with $1.92 trillion in assets. Founded in 1852, Wells Fargo provides banking, investment, and mortgage products and services, as well as consumer and commercial finance through 7,200 locations, more than 13,000 ATMs, the internet, and mobile banking. Figure 1 highlights the strength of Wells Fargo in a number of industry categories.

Driven by its commitment to deliver exceptional service to its customers and helping them succeed financially, business architecture enables Wells Fargo to continuously reimagine banking, translate business priorities into strategic change, and make transformation a core competency.

Around the world, digital-first consumers, regulatory change, and technology disruption have fundamentally changed the financial services industry. According to Deloitte, to be successful, the bank of the future will need to embrace emerging technology, remain flexible to adopt evolving business models, and put customers at the center of every strategy.

To accelerate the digitalization of global banking services and advance an enterprise-wide transformation for money movement, Wells Fargo used business architecture to align business and IT leaders with a shared vision and framework to visualize the impact of change, manage risk, and strengthen controls.
In a previous effort to initiate the transformation, the business architecture team analyzed the current state of the organization and underlying processes. In addition to identifying numerous processes and activities related to money movement and many controls tied to risks, the team’s assessment revealed opportunities to rationalize information, job titles, and some siloes within the organization.

To define the roadmap and strengthen the control environment, the team leveraged a three-phased approach to help business and IT partners view the issues being solved for by the transformation, illuminate critical issues, and develop a clear path forward.

**PHASE 1: ESTABLISH THE FRAMEWORK**

The team used four types of business architecture deliverables, illustrated in Figure 2, to clarify its strategy, assess impact, identify gaps, and architect change to strengthen its control environment.

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*Figure 2: Business Architecture Deliverables Used for Root Cause Analysis*

**FOUNDATIONAL: STRATEGY MAP**

To balance customer experience, risk, and efficiency, the team used the Kaplan Norton Strategy Map to ensure the formulated strategy had measurable objectives, guiding principles, success criteria, and customer and internal perspectives.

**Strategic objectives:** Measurable objectives were identified to balance customer experience, risk, and efficiency. Managing risk, for example, was a key objective to strengthen the control environment.

**Guiding principles:** A few guiding principles were established to define how to think and operate as a team, for example, apply an “outside-in” perspective to consider a customer perspective.
Success criteria: To ensure alignment to strategic objectives, five to seven measurements were established, including the ability to rationalize technology solutions using a capability-based view of the target state design.

Customer perspective: To improve customer experience, the team identified approximately ten customer needs, which included ensuring a transparent process to earn trust and enable customers to follow their money.

Internal perspective: Operational needs were identified to support financial and customer perspectives, for example, to enable as much automation as possible, and straight-through processing was a requirement.

FOUNDATIONAL: VALUE STREAM

Officially defined by the BIZBOK® Guide, a value stream is a “visual depiction of the end-to-end activities that achieves value for a given stakeholder or stakeholders within the context of a given set of business activities.”

When it comes to moving money, there are many activities that happen concurrently. While value streams had been established, they needed to be modified and defined, demonstrated in Figure 3 to ensure a clear scope and common view.

CREATE A COMMON VIEW USING A VALUE STREAM

With numerous processes that could be executed across multiple stages, it was important to be clear about what happened at each stage, cross-map the capabilities that enabled them, and establish entry and exit criteria.

The value stream and its stages were not constrained by organizational boundaries. For example, when conducting self-service, there were two stages in the value stream. Without comprising the principles of business architecture, the team overlayed the activities and enabling capabilities to help internal stakeholders understand how they and their customers fit in.
FOUNDATIONAL: INITIATION CHANNELS

To build the design blueprints, the team identified the initiation channels, shown in Figure 4, used by retail and commercial clients to interact with and move money across electronic systems and APIs, including digital, phone, written, and in-person.

**Figure 4: Initiation Channels Used for Money Movement**

These channels created important nuances to the capability instances and behaviors, particularly at the front of the value stream where there was heavier bi-directional customer interaction, as well as unique policies and risk that accompanied those channels.

Not intended to bifurcate technology solutions, the design blueprints enabled focused discussion around specific channels and user experience. While the team used clear design principles to promote a seamless omnichannel experience, they found it important to consider channel nuances as they developed their end-to-end blueprints.

FOUNDATIONAL: MICRO-USAGE SCENARIOS

To identify the specific ways customers might interact with the bank within the value stream for moving money, the team used three primary micro-usage scenarios, represented in Figure 5.
By defining the interactions and flow between customer needs and how each need was delivered, micro-usage scenarios helped the team delineate how products and services were used, provide a customer lens to define journeys and interactions, surface gaps, and pressure test the target state design.

**As a product or service:** The team found that when customers moved money for an explicit purpose, there was a different type of interaction: Customers supplied instructions and expected transparency.

**As a feature:** Used in conjunction with another product or service, when a customer was focused on a primary service, such as their brokerage or trust account, communication was focused on that particular transaction, rather than money movement.

**House/on-us:** To understand internal impacts, the last scenario focused on how Wells Fargo communicated and moved money for internal business operations and in-house usage.

**FOUNDATIONAL: BLUEPRINT LANDSCAPE**

The value stream stages, micro usage scenario categorization, and initiation channels drove how to construct the design blueprint landscape. Figure 6 demonstrates how this modular approach enabled prioritization and targeted, focused development.
While they were given latitude to create multiple blueprints to support value streams, despite variances, the team remained grounded in one common framework.

In the first few weeks, this model was used to set the stage for how they would approach the design, which resulted in 16 blueprints that would be built out based on channel, usage, and stage.

**PHASE 2: BUILD THE FRAMEWORK**

Per the *BIZBOK® Guide*, business architecture represents real-world aspects of a business and how they interact to help executives and other stakeholders answer commonly asked questions: who, what, where, when, why, and how.

To answer these questions and deliver business transparency, the team needed to define and ensure the blueprint structure was grounded in capabilities, stakeholders roles, and best practices for how they operate.

The team worked with the customer experience and operations teams to identify customer actions and self-service opportunities and define components based on transformation stakeholders’ (including various disciplines) needs. Using industry research within the blueprint to strengthen the control environment, Figure 7 highlights the three steps the team utilized to create design blueprints and provide visibility into the relationships controls, risks, policies, data domains, and the information used across the enterprise.

![Diagram of Design Blueprint Landscape]
Given the quantity of processes, policies, and data elements, authoritative sources were used to build maps and matrices, bridge customer actions and capability patterns, and visualize interdependencies.

Built in partnership with business process resources and subject matter experts, the design blueprint simplified the many-to-many relationships and established clear boundaries. Depicted in Figure 8, with common framework to identify where issues occurred, the processes were synthesized to 40+ capabilities and used to build the design blueprints for the target state design.

Figure 7: Steps to Build Design Blueprints

Figure 8: Target State Designs
The capabilities had traceability to their Process Classification Framework, adapted from AQPC. Each process had a corresponding number used within capability patterns to identify which one was tied to a specific process, such as payment order settlement. The blueprints synthesized many process maps into an end-to-end simplified view for money movement with clear relationships between the business architecture domains and other critical concepts.

To build the design blueprints, Figure 9 demonstrates how capability patterns were sequenced in a logical, business-friendly flow based on the capabilities within a design blueprint for a given value stream stage. A blueprint for initiation, for example, would include a logical flow and business-friendly view that depicts how information is captured when a customer logs in and verifies their identification.

![Figure 9: Design Blueprints](image)

By providing the needed transparency into each domain, where it applied in the value stream and the relationship between domains, the design blueprints provided a logical flow within a familiar business context and a shared understanding of the target state.

With a business architecture in place, Wells Fargo was empowered to re-envision strategy execution, assess the impact of change, establish a clear view of the enterprise as it related to the current and future states of the business, and define initiatives required to achieve their goals and deliver stakeholder value. Figure 10 illustrates how the business architecture worked together.
Now able to demonstrate how value streams, scenarios, maps and matrices, and design blueprints fulfilled strategic objectives, the team could account for the many ways Wells Fargo and its customers needed to move money, identify issues, and optimize complex interactions.

PHASE 3: ANALYZE ISSUES USING THE FRAMEWORK

Next, the team created a heat map, represented in Figure 11, to understand where issues occurred. Integral to identifying root cause, the heat map enabled the team to assess the What, Where, and Who regarding issues and partner with other disciplines to conduct a deep dive analysis to determine How, When, and Why.

Hundreds of issues were analyzed and cross-mapped to select domains, capabilities, and controls to reveal where breakdowns occurred. In addition, the team used the maps/matrices to track additional attributes and metadata.
Figure 11: Heat Map Used to Identify Issues

With the ability to pinpoint capabilities and controls tied to each issue, Figure 12 highlights how the team stratified and evaluated issues against the value stream stage, initiation channel, and micro usage scenarios to ensure they were clear about where the greatest opportunities lay.

Figure 12: Framework Used to Analyze Issues for Root Cause

Based on heat intensity and the breadth of capabilities applied to the value stream, the heat map helped determine where to focus. For example, in Figure 13, the capability 5 instance included the quantity of events, level of risk exposure in terms of cost and number of specific issues for that capability. The heat map not only showed intense red heat but revealed that it spanned across multiple stages in the lifecycle.
Cross-mapping for issues and events revealed related value streams they needed to review and account for up- or down-stream, as well as any other concurrent issue.

### Figure 13: Heat Map Example

Seen in Figure 14, to identify process owners and who was accountable for fixing issues, the team leveraged the capability view and cross-mapping. Because many capabilities with multiple owners were needed to execute a value stream, this model aligned key stakeholders within and outside of the transformation on the target state design.

### Figure 14: Capability Cross-Mapping Used to Identify Process Owners
With cross-mapping in place, the team could focus on the capabilities causing the most issues. More than a process-based approach, Figure 15 shows how cross-mapping helped the team simplify and surgically pinpoint the issues tied to the capabilities and controls. With insight into common capabilities across processes, the capability-based approach enabled the team to unify the company around a common solution and mitigate the risk of creating different and/or redundant solutions.

### Figure 15: Capability-Based Approach Used to Focus on Issues and Develop a Common Solution

Next, to determine where the business experienced the highest risk exposure, the team created a list of the top five capability issues and stratified them against other organizations. Illustrated in Figure 16, this insight enabled the team to prioritize and engage organizations with the highest risk for targeted root cause analysis and glean best practices from organizations with fewer or no issues.

### Figure 16: Stack Rank and Stratify Top Capability Issues by Organization

In addition to identifying where issues occurred and what broke down, the heat map showed where not to focus. It also allowed for the segmentation of capabilities that did not experience significant issues,
but required integration into the target state design and regression testing. With visibility into where issues occurred, what broke down, and where not to focus, the team found opportunities in four categories that helped it address these issues as follows.

1. Identify critical focus.
2. Verify where integration was needed.
3. Determine what was important but outside of control and needed influence.
4. Understand what needed to be influenced outside of the value stream, such as identity access management issues, upstream provisioning, and how to set authority limits.

Next on the journey, the team used its list of top issues to create target state design concepts that captured the end-to-end experience and orchestration of the most critical capabilities, stakeholders, and best practices. This helped the team conceptualize and bridge the What and How, and initiate conversations with technology partners to build out solution designs to support those experiences.

Capability patterns with the most issues and highest risks (influenced by the heat map) were selected for more holistic target state designs. Seen in Figure 17, design standards and models for the select capability patterns enabled the team to conceptualize how to mature the capability for transformative change.

![TARGET STATE DESIGNS: CONCEPTUALIZE KEY CHANGES](image)

**Figure 17: Conceptualize Key Changes**
THE RESULTS

A journey still underway, business architecture helped Wells Fargo create the alignment needed to enable a successful transformation execution for money movement and plan for a digital future.

The business architecture discipline influenced how the program management team as well as business and technology partners viewed the issues being solved for by the transformation effort, identified the most critical challenges, and provided a business context to evaluate causes, impacts, and prioritization.

In addition to strengthening collaboration within and across disciplines, the business architecture models and blueprints provided transparency into the capabilities, policies, risks, and controls needed to enable money movement and develop the target state design and establish a clear path forward.

To deliver exceptional service and accelerate strategy execution, business architecture will continue to help Wells Fargo infuse digital-first thinking into every aspect of the bank, accelerate transformation, and continuously:

- Simplify banking and improve digital experiences for retail and commercial clients
- Provide offerings that allow customers to engage how, when, and where they choose
- Strengthen and expand risk oversight and controls
- Improve cross-functional collaboration and organizational alignment across business lines
- Simplify banking with operational efficiency, agility, and streamlined processes
- Focus “outside-in” on value delivery for customers

“Every organization has a problem to solve for. For Wells Fargo, business architecture enables us to focus on ‘outside-in’ value delivery for customers, understand the business needs, drive solutions that set the standard for customer and digital experiences to enable customers to seamlessly interact with the bank how, when, and where they choose.”

Teresa Garcia-Holm, Strategy Consultant, Wells Fargo & Company

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i 4Q20 Wells Fargo Today (Dec 2020). wellsfargomedia.com

ii Bank of 2030: The Future of Banking Deloitte | Financial Services


iv BIZBOK® Guide, Business Architecture Guild®