New reference architecture needed for banks

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With a complex regulatory environment, an influx of nontraditional competitive pressures and ever-increasing customer expectations, today’s banks face an imperative for change. Just to stay competitive, let alone thrive, financial services organizations must deliver more effective and more efficient services to the customer.

To enable this, it is important to think differently and execute differently. Many banks are already making significant changes to organizational structures as well as customer-facing applications. Innovation is a critical factor underpinning all initiatives. But innovation requires investment, and banks are seeking to fund this by shifting budget away from “run-the-bank” activities toward “change-the-bank” activities.

Understanding of just how deeply this shift must permeate their organization varies from bank to bank. Meaningful changes in business strategy dictate this transformation and, as such, the technology change required to support it cannot be accomplished through tactical IT decisions. Instead, what’s required is a fundamental re-evaluation of how a bank delivers value.

From a technology point of view, the key to enabling transformation is first developing a more nimble and efficient reference architecture. An example of how such a reference architecture might look is shown in Figure 1. At a strategic level, a reference architecture determines the best delivery method for specific technologies within an institution’s IT infrastructure. It documents the hardware, software, specifications and configurations needed to deliver IT resources in the most efficient manner, and provides the standard for change.

An effective and up-to-date reference architecture reduces integration complexity and aligns business goals with IT. When continually revised and updated, a reference architecture can position a financial institution to better address new regulatory demands and unlock additional revenue through an improved customer experience.
Following the four key principles outlined below can provide guidance to banks undergoing development or updates to their reference architecture:

Four principles for reference architecture transformation

1. Embrace the outside-in perspective

An outside-in approach — a corporate mindset that first looks outside the enterprise for inspiration, expertise and innovation — can provide a critical forward-thinking perspective to a bank’s transformation initiatives. By contrast, closing the enterprise off to outside influences can reduce the volume and breadth of ideas and effectively stifle innovation. Outside-in practices are becoming the new foundations for 21st-century business competitiveness for these very reasons. A comparison of the two approaches is shown in Figure 2.

The key is to blend existing in-house capabilities and best practices with an openness to emerging outside-in forces and possibilities.

Figure 1. An example of a reference architecture for banking
Of course, long-standing inside-out practices defined successful global business operations in the 20th century. They’ll never fully go away. The key is to blend existing in-house capabilities and best practices with an openness to emerging outside-in forces and possibilities. To enable this, a bank’s reference architecture should be consistent and enterprise-wide, allowing all relevant areas of an organization to benefit and share the information and advantages that outside-in technologies and best practices can provide.

The Banking Industry Architecture Network (BIAN) was created in part to help banks adopt this mindset. BIAN is an independent, nonprofit association established to promote a common banking architectural framework to ensure interoperability and to identify core IT services in the banking industry. The outside-in perspective is entirely compliant with BIAN best practices.

2. Be open to the utility model

Over the course of a reference architecture reworking, it may be determined that certain noncore functions are better off outsourced or performed by a utility. Very few institutions in any vertical excel at everything. Recognizing that operational tasks that are not core competencies can be outsourced to third parties specializing in a given area will help streamline operations and release additional resources for core functions and for innovation.

Figure 3 illustrates this principle. It highlights those banking functions that could be considered vital (core), those that are commodities and those that can be considered utilities. Once these distinctions are made, the business decisions help dictate efficient technology decisions, where functions identified as utilities are ripe for outsourcing.
3. Take advantage of new data

With the rise of ubiquitous connectivity and the increasing use of social media, more personal information is available about consumers — much of it freely, on online databases. By accessing this information, banks can improve the way they interact with their current and potential customers, as shown in Figure 4.

Turning data into actionable intelligence is far from easy, however. Companies of all industries struggle to turn the gigantic volumes of consumer data available today into insight. In banking, this leaves the organizations vulnerable to nimble newcomers in the financial market that see an opportunity to make better use of this data.

However, this influx of new data can yield great benefits for more traditional banks as well. Executives often talk about experience and intuition being at odds with a data-driven decision-making process. But with the right architecture turning consumer data into insight, intuition is not pitted against market data. Data can now be used to inform and support intuition and innovative decision making.
4. Start your transformation now

Historically, most systems within banks and financial institutions were purpose-built and — years and decades later — most are still fulfilling their purpose in some way. It can be easy, then, for banks to simply follow the path of least resistance and leave these old systems in place, untouched, letting them do what they’ve always done. But in a market that requires true transformation, this kind of “if it ain’t broke” mentality is no longer acceptable. A bank’s systems must do more than maintain the status quo to be effective.

Instead, banks must start the process of evolving these purpose-built systems — to improve efficiency and match today’s accelerated business requirements — right now. No one evolutionary path is right for all institutions, and there is not necessarily an immediate need to “lift and shift” whole systems and processes, assuming time is on your side. But, if faced with a time crunch, an institution could consider a two-pronged approach of evolving to next-generation infrastructure based on open standards and, in conjunction, modernizing its applications to take advantage of that infrastructure.

Some systems may be best switched out, while others may benefit from more gradual improvement through an outside-in approach that ultimately leads to delivery as a service. Figure 5 charts potential steps in that transformation journey.

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Figure 4. Enhancing customer relations through the use of personal data
Those in earlier stages of the transformation journey will benefit from external consulting and commercial off-the-shelf software, which can often replace proprietary legacy systems. Others further down the transformational journey might be ready to move right to cloud infrastructure or even native cloud applications and outsourced business processes.

**Conclusion**

The battle today in the banking industry is for control of the customer experience — for the interface between the user and the product or service being delivered. This software-enabled interface layer is where the value and profit margin now reside.

To gain control of this layer — and, by extension, to gain control of the customer experience — banking institutions require a new business strategy. Once that strategy is in place, banks will need a revised reference architecture that aligns their IT resources with their new business goals. This process must begin soon, if banks hope to win this existential battle against an increasing number of competitors.
Unfortunately, many banks have shed most of their enterprise architecture teams over the past decade in an attempt to cut costs. The good news is there are proven best practices and robust partner ecosystems that can help banks harness recent innovations and get back on track. Leveraging these resources, banks can reallocate a larger share of their operating revenues from operating the business to changing and evolving the business.

In making this reallocation, it is important to remember not to purpose-build newer systems and infrastructures, only to create a newer legacy. This thought process allows a transformation of the reference architecture to flow naturally from the change in direction, thus making for a successful evolution.