

BIAN: Powering purpose-driven, future-ready banks



Abstract

In the race to stay ahead, provide best-in-class customer service, and meet ever increasing market demands, banks have bolted on digital capabilities in an ad hoc manner introducing considerable complexity into the underlying IT architecture. Today, most traditional banks operate with a complex, unmanageable IT architecture with duplicate systems and data impeding speed-to-market for new products and services. Increasingly inflexible legacy systems have resulted in business silos and monolithic applications that hinder agility and adversely impact the pace of key transformation initiatives.

To stay relevant, incumbent banks must foray into areas beyond traditional banking spaces by stepping into their customers' lives at the right time with the right product. This will require banks to embrace purpose-driven business models through new partnerships with larger ecosystem partners, which in turn will require architectural readiness and plug-and-play integrations to enable ecosystem play. While banking channels are increasingly adopting digitalization to deliver beyond banking services, pain points around legacy architecture remain. In our view, to address these pain points, transition to purpose-driven ecosystem models and become future-ready, banks must adopt the Banking Industry Architecture Network (BIAN) standard. This article focuses on BIAN adoption trends and journeys.

BIAN: Pathway to the future

The Banking Industry Architecture Network (BIAN) offers a common framework that standardizes and simplifies banking architectures to facilitate interoperability within and outside the boundary of a bank. From a business perspective, BIAN equips banks with the ability to harness capabilities of ecosystem players, embrace open innovation and improve speed-to-market with associated cost savings through reuse and revenue benefits by enabling cross sell opportunities. Furthermore, the agile, flexible BIAN architecture offers banks the capability to rapidly and seamlessly roll out new offerings, become resilient and adaptable to withstand paradigm shocks, and transition to futuristic, purpose-driven business models to effortlessly operate in the new normal. BIAN enables these advantages by providing application-to-application (A2A) application programming interfaces (APIs) with the right degree of service granularity. In addition, BIAN enables coreless banking through an API backed microservices platform that facilitates easy integration enabled by a rich set of BIAN assets.¹

Banks have invested heavily in their core systems over the decades, and are now looking at revamping them to suit the needs of real-time integration with other banks and partners. Some banks have effectively used the BIAN architecture to modernize core banking and provide a vendor agnostic core platform while others have embarked on a journey to transform their entire core to a componentized framework broken down into services developed using the domain-driven design (DDD) approach. Legacy modernization, new service development, migrating existing services to microservice architecture or the cloud, migrating away from middleware technologies, and API catalog creation are ideal candidates for BIAN API adoption. We see several BIAN adoption trends in the industry (see Figure 1).

[1] BIAN, Architecture overview, <https://bian.org/servicelandscape-9-1/>

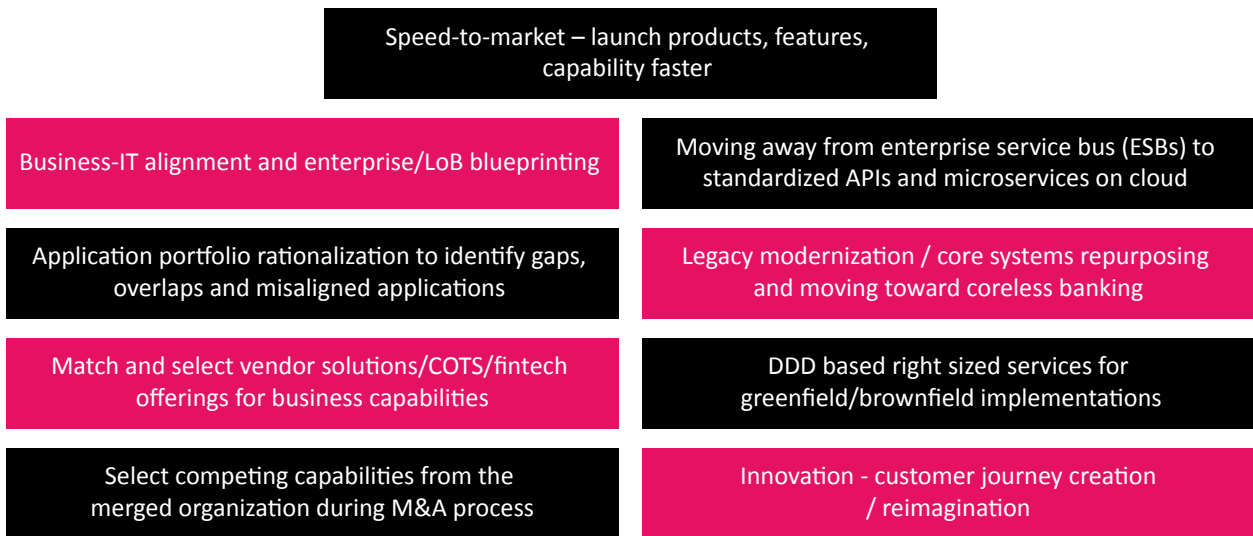


Figure 1: BIAN Adoption trends

BIAN adoption: An action plan for success

We observe two popular adoption approaches in the industry – the top-down and bottom-up approach. In our experience of implementing the top-down approach or business-IT alignment/blueprinting and application portfolio rationalization, we observe that banks often lack a functional language within the IT landscape, which is key to identification of opportunities for application portfolio rationalization, optimization and modernization.

The adoption journey typically involves several considerations. Mapping banks’ value chain with the BIAN service landscape is a complex exercise that requires significant expertise in BIAN and involves multiple resources. Given the steep learning curve involved, banks must either nurture these skills in-house or leverage experts from the industry. In addition, while mapping application services with BIAN service domains, the BIAN prescribed service domain may not be of the right granularity, which means that the BIAN service domain may have to be refactored.

Banks have multiple product lines and operate across geographies leading to customized data specific to a country or a product line. In such situations, BIAN architects will need to take a decision on whether to implement the same capability at an enterprise level or opt for different geography- or product line-specific versions. For example, banks require differentiated capabilities to comply with regulatory provisions that vary across LoBs and geographies.

Highlighted below are some of the critical success factors (see Figure 2) for successful implementation of the top-down approach based on experience with multiple customers as well as the benefits (see Figure 3).

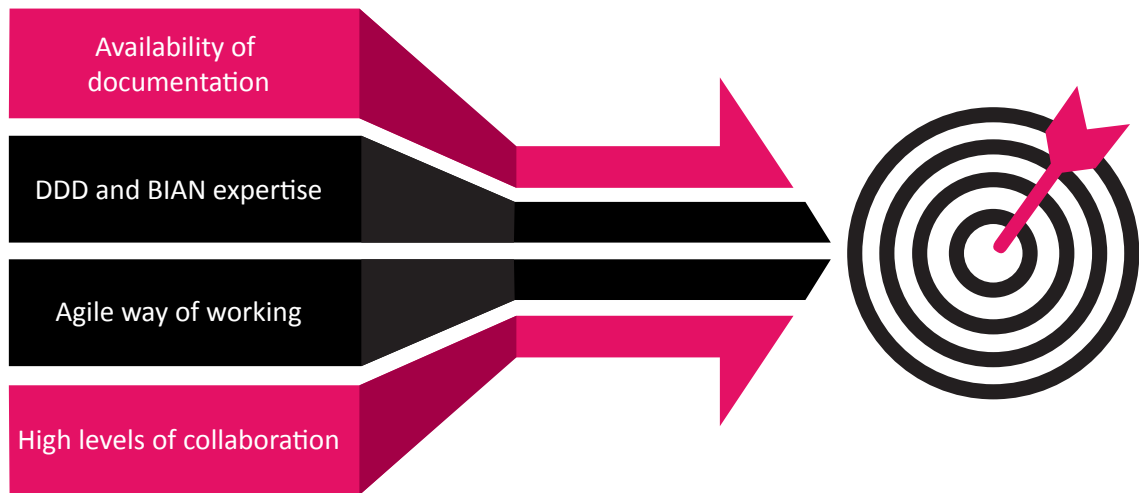


Figure 2: Critical success factors for the top-down approach

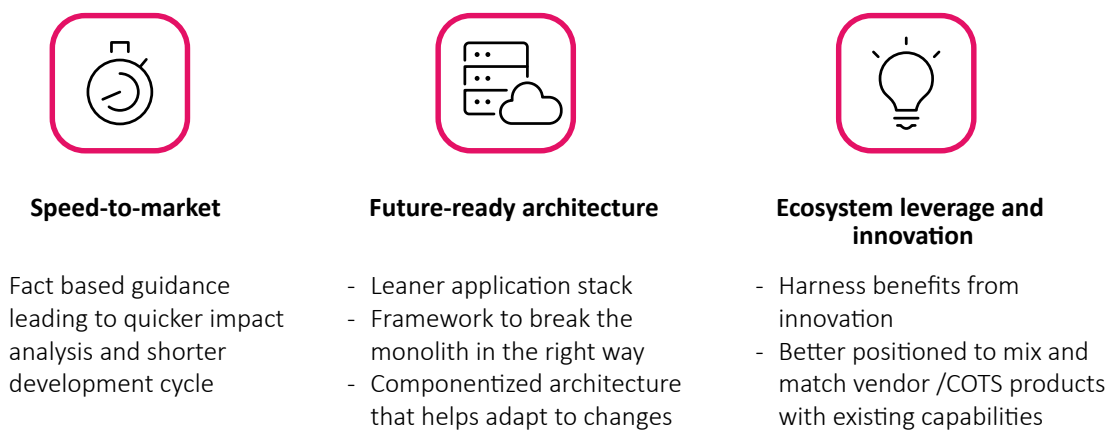


Figure 3: Benefits of top-down approach

The other popular approach is the bottom-up approach. Before embarking on the API-fication/modernization journey, banks must understand the value of BIAN adoption and appreciate the benefits the implementation will deliver rather than merely considering it as one more standard that needs to be adopted.

Given BIAN is a global architecture, many local attributes will need to be aligned, and individual banks will have to semantically map these and create customized attributes. In addition, banks must maintain traceability of BIAN's business object model as well as their own customized local data model.

Aligning bank's data model with the BIAN data model needs knowledge and domain expertise of the BIAN data model in order to introduce the right sub-qualifiers in service operations so that they are discrete and non-overlapping and rightly mirror the bank's context.

Highlighted below are some of the critical success factors (see Figure 4) for successful implementation of the bottom - up approach as well as the benefits (see Figure 5).

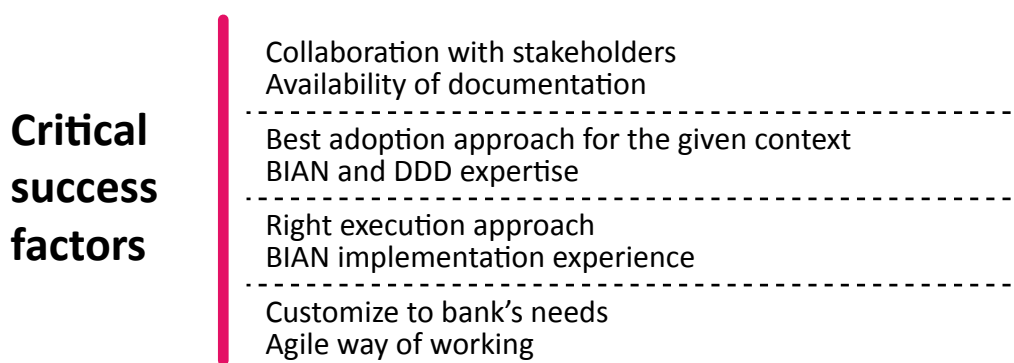


Figure 4: Critical Success factors for bottom-up approach

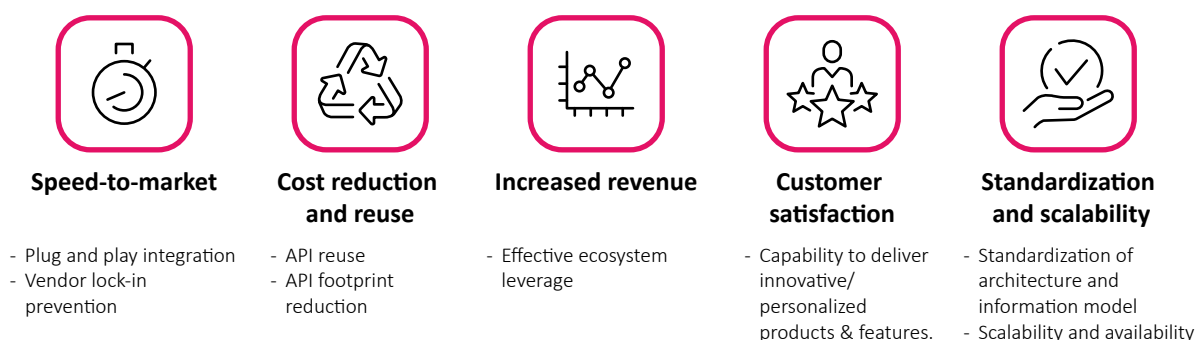


Figure 5: Benefits of bottom-up approach

The way forward

We recommend the top-down approach for business-IT alignment/blueprinting and application portfolio rationalization for banks that want to:

- Migrate from legacy architecture by incrementally hollowing the core and thus need the right insights on selective decomposition
- Remove redundant functionalities and build a leaner, efficient application stack
- Pursue greenfield development based on DDD.

Defining a blueprint will help banks to identify the capabilities that must be migrated first based on factors like functional patterns, complexity and so on.

We recommend the bottom-up approach for API-fication when banks want to focus on quick wins by:

- Leveraging ecosystem players to their best benefit
- Creating an API marketplace business model
- Building an API catalog to reduce development time.

Banks can pilot BIAN adoption at a line of business (LoB) level or, at times, even at a minimum viable product (MVP) level within an LoB and then evaluate the benefits realized in order to aid decision-making on scaling adoption across the enterprise. BIAN adoption is effort-intensive and often fraught with delays due to the unavailability of adequate business process and application documentation. In such scenarios, deploying a team with prior BIAN implementation experience helps accelerate the process as they are equipped with ready-to-use templates for data gathering and deliverables, domain expertise and industry best practices.

In a nutshell

There is increasing demand for BIAN adoption in banks due to the manifold benefits it can deliver. However, the BIAN architecture is still evolving. Several banks have reaped the benefits of BIAN adoption and learnings from such implementations have played a role in further improving the standard. Such feedback loops must form an integral part of the transformation journey to the mutual benefit of BIAN as well as banks. We believe that this symbiotic relationship between banks and BIAN will help define a global IT architecture standard. Needless to say, banks that implement it with alacrity will thrive.



About the authors

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Reshma Lall heads the transformation architecture group of the Banking, Financial Services and Insurance (BFSI) business unit at TCS. Reshma has over two decades of experience working with global banking clients and leads several offerings that accelerate digital transformation journeys. An expert in new age technologies, architecture styles and banking, Reshma has several niche certifications in business and technology areas including TOGAF and BIAN. She holds a Bachelor's degree in Electronics and Communication Engineering from Birla Institute of Technology, Mesra, India.

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Awards and accolades



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