SunTec®

SunTec's BIAN Conformance for Enterprise Architecture

Introduction

Banks face significant challenges in meeting present and future demands. The complexity and fragmentation of legacy systems pose substantial risks and costs, hindering effective transformation efforts and posing a serious risk to transformation programs. Fragmented business processes result in operational inefficiencies, errors, and customer dissatisfaction. Despite access to extensive data, banks struggle with siloed and outdated information, while organizational structures discourage customer-centric approaches. Limited agility and innovation exacerbate challenges, with slow response times contrasting sharply with the rapid pace of digital advancements. Efforts to address digital demands often focus narrowly on improving user experience, neglecting comprehensive customer experience enhancement. Additionally, replacing, or renewing core systems entails high costs, lengthy timelines, and considerable risks.

Given such a complex landscape, rapid technological advancements, evolving customer expectations, and increasing regulatory pressures, adherence to industry standards has become paramount for technology companies seeking to deliver innovative and reliable solutions. At SunTec, we recognize the significance of industry standards in driving excellence, customer-centricity, interoperability, and trust within the global marketplace.

With a steadfast commitment to upholding the highest standards of quality and reliability, we proudly align our products and solutions with industry-leading frameworks. Among these standards, the Banking Industry Architecture Network (BIAN) framework stands out as a beacon of excellence, providing a comprehensive set of guidelines and principles for the banking industry.

This document serves as a testament to SunTec's unwavering dedication to conform to and drive industry standards, particularly our conformance with BIAN's rigorous framework. Through meticulous adherence to BIAN's standard, we ensure that our products meet the evolving needs of the banking sector while fostering seamless integration, scalability, and innovation.

In the following sections, we delve into the key drivers that guide our compliance efforts, the rigorous process we followed to align with and drive BIAN's framework, and the tangible benefits our customers derive from this commitment to excellence. By driving and conforming to BIAN's industry standard, we reaffirm our position as a trusted partner in driving technological advancement and transformation within the banking industry.

UNDERSTANDING THE BIAN STANDARD

BIAN is a collaborative ecosystem formed of leading banks, technology providers, consultants, and academics across the globe. The ecosystem is dedicated to lowering the cost of banking and accelerating the speed-to-innovation. BIAN members combine industry expertise to define a revolutionary banking technology framework that standardizes and simplifies core banking architecture, which has typically been convoluted and outdated. Based on service-oriented architecture principles, their comprehensive model provides a future-proofed solution for banks that fosters industry collaboration.

The BIAN standard offers a comprehensive blueprint for banking operations, aiming to simplify application portfolios by componentizing business operations. It introduces Service Domains as standard business functional components and extends service operation specifications to provide semantic API definitions, facilitating component connections. The BIAN standard offers a systematic approach for designers and builders to implement BIAN semantic APIs, encompassing legacy system adaptation and integration of new micro/macro-service solutions. It addresses restructuring of back-end transaction-processing systems and interactive customer-facing systems, covering various banking activities. The standard also outlines foundational architectural design principles and techniques essential for technical leads and architects to effectively apply the BIAN standard.

The Service Domains exhibit architectural properties conducive to aligned system solutions and include:

Discrete and Elemental Functions

Each Service Domain encapsulates a unique, non-overlapping business function, enabling application containerization and operational re-use. By replacing hardwired tasks with specialized, service-enabled functions, Service Domains promote extensive operational capability re-use and can be incrementally enhanced over time.

Stability and Incremental Development

Service Domains maintain stable business roles over time, allowing for incremental development and adoption. With good design, Service Domains can be built and integrated incrementally, leading to longer shelf-life and continuous

Canonical Interoperability

BIAN Service Domains define generic functional building blocks that are consistent across deployments, supporting high levels of interoperability. While some functionality may be location-specific or unique, the core functionality and service connections remain generic, facilitating seamless replacement of underlying systems without disrupting surrounding business activities.

In summary, the BIAN standard offers a conceptual business component framework for solution design and development, defining standard functional building blocks and promoting consistency in interpreting their roles and service exchanges. While detailed implementation-level designs are still required, Service Domain-aligned systems enable incremental development, operational reuse, and progressive elimination of complexity and redundancy in legacy application portfolios.

Key Drivers: SunTec's Pillars of Alignment with the BIAN Standard

1

Towards a Composable Architecture

SunTec's technology architecture aims to drive and align with BIAN's concept of composable architecture, which we refer to as an entity-centric, evolutionary-by-design architecture. While the terminology may vary, the underlying principles remain consistent. Our architecture is strategically designed to deliver business value within the banking ecosystem, mirroring the ideals of BIAN's composable architecture framework. As pioneers in this approach, we are the first product company to rigorously evaluate our application architecture, specifically our 'entity-centric design', against BIAN Service Landscape 12.0.

2

Contribution to BIAN Certification

SunTec actively collaborates with BIAN's Product Certification Working Group to enhance and streamline their certification questionnaire, thereby simplifying the overall certification process. Our extensive technological expertise and hands-on experience in deploying products for banks globally empowered us to provide valuable input that enhanced the overall conformance process and assessment questionnaire, thereby bringing structure to the overall certification approach.

Granularity of Service Domain Roles

3

We spearheaded the proposal to define a new role for BIAN Service Domains, with the aim of identifying certain Service Domains that provide niche functionality through a single system while supporting other behaviors through other systems in the bank. The earlier segmentation of roles was limited to a Service Domains being:

A. Core: Providing complete functionality through a single system, which is also the system of record.
B. Proxy: Leveraging core capabilities as shadow functions, and hence being a proxy to another system of record.
C. External: Support as interface function, while the core function gets delivered through another system.

Through our advocacy, BIAN introduced a new role category known as Core-Partial, aligning with our recommendations. This initiative addresses the crucial segmentation of functions required by banks, determining what functions can be externalized and supported by a different system such as SunTec Xelerate. Acting as an intermediary between the core and customer facing systems, SunTec Xelerate identified service domains relevant to us (to externalize pricing, product catalog, offers, etc.), delineating the boundaries of system requirements. This allows certain core operations such as externalizing pricing and product catalog to peripheral systems such as SunTec Xelerate while allowing other functions to be managed by the core banking system. The introduction of this new role category allows BIAN to segment Service Domains that provide a componentized set of functionalities for the banking ecosystem, but internally may be fulfilled by specialized systems, which will play the role of a core only for the subset of that Service Domain's overall functionalities. This also augers well with BIAN's philosophy of Coreless Banking, whereby specific functionalities may be plugged-and-played as opposed to being delivered by a monolithic system.

Core (Complete)

- Entire functionality of a BSD supported through Xelerate
- Xelerate is the system of record
- Xelerate manages the complete lifecycle of CR
- **Customer Billing** BSD is an example of Core (Complete) role
- All BQs of Customer Billing BSD – Invoicing, Reminders and Payments Tracking handled
- Entire lifecycle of Customer Invoice is managed within Xelerate

Core (Partial)

- Part of BSD functionality (BQ) supported completely in Xelerate
- Xelerate is system of record only for subset of functionality
- Xelerate manages lifecycle only for partial functionality offered by BSD
- **Current Account** BSD is an example of Core (Partial) role
- ServiceFees BQ of Current Account BSD is the only BQ where Xelerate plays Core role
- Xelerate is also system of record for fees and charges for Current Account
- Other behaviors of this BSD such as Account Lien, Sweep, Cards are not in Xelerate scope

Proxy

- Some part of BSD functionality is supported through a "local" copy of system of record
- Xelerate is not the system of record and synchronizes its local copy with that system
- Lifecycle management of this role is not in Xelerate scope
- **Party Reference Data Directory** BSD that manages customer data is an example of Proxy
- CRM system manages the core functionality of this BSD, and Xelerate has limited role
- CRM remains the system of record for customer data, while Xelerate synchs the data
- Xelerate leverages data as a local copy, but is not managing lifecycle of customer data

External

- Xelerate only interfaces with this BSD to delegate certain functionality
- Functionality of this BSD remains outside the scope of Xelerate
- Xelerate does not play a role in the lifecycle of BSD, and only send/receives data
- **Document Directory** BSD is an example of External role
- Xelerate only passes any documents for storage or retrieves from an external DMS
- Xelerate is not responsible for managing the lifecyle of Document Directory
- Xelerate will have external APIs to interface with such a system

BSD – BIAN Service Domain   CR – Control Record   BQ - Behavior Qualifier

4

Alignment to Open APIs and Standards

We've meticulously mapped our business services and functional attributes, ensuring comprehensive API documentation accessible through the BIAN Portal. These APIs adhere to industry standards such as SWIFT, ISO 20022 etc. to meet compliance requirements, with detailed documentation provided by BIAN. Specifically, for pricing and billing-related APIs, we've received full coverage and have built it into our product in a standardized manner.

5

Driving Adoption of Microservices Architecture in Banking

Our microservices-based architecture enables seamless integration of specific functions into a bank's ecosystem, perfectly aligned with BIAN's Coreless Banking approach. Leveraging our microservices-based product, we facilitate plug-and-play functionality within the larger banking environment.

Methodology Followed to Align with the BIAN Standard

Step 1: Initial Research
- Conducted a comprehensive study of BIAN's Service Landscape.
- Gained an in-depth understanding of key BIAN concepts, including:
    - BIAN Service Domains (BSDs)
    - API assessment
    - Control Records (CRs)
    - Behavior Qualifiers (BQs)
    - Service Operations (SOs)
    - Business Object Models (BOMs)
- Performed API assessments and documented control records for each API.
- Defined behavior qualifiers, service operations, and business object models to align with the BIAN standard.

Step 2: Creating an Application Cluster
- Identified 54 BIAN Service Domains (BSDs) that align with SunTec Xelerate functionality.
- Correlation done with SunTec Xelerate Business Entities (BEs).
- Mapped roles based on the functionality coverage of SunTec Xelerate from the perspective of BIAN BSDs.
- Mapped identified BSDs with relevant SunTec Xelerate modules to ensure integration.
- Conducted a detailed review with a BIAN Architect to validate the alignment and ensure compliance and address any discrepancies.
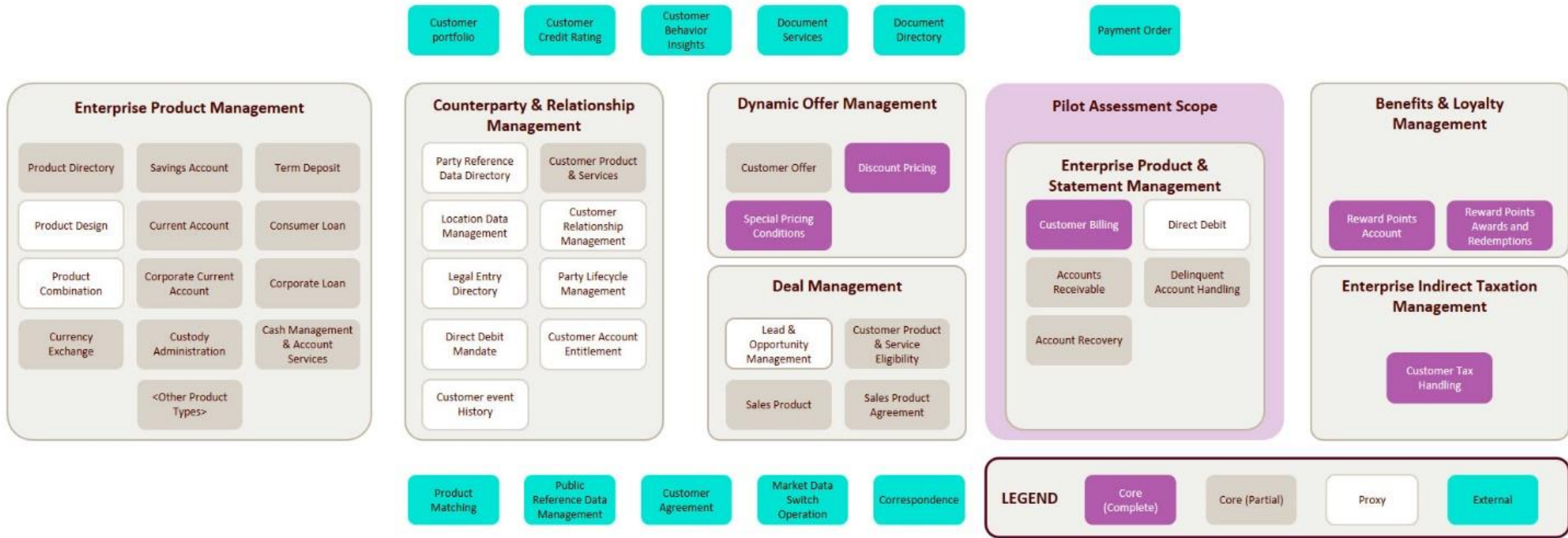
Image: SunTec Xelerate Application Cluster

Step 3: Participation in BIAN's Questionnaire for Self-assessment

- Contributed to Product Certification Working Group in simplifying questionnaire and restructuring tests.
- Helped develop Application Guidelines. SunTec Xelerate provided a view of application scope and relevant Service Domains from the overall BIAN Service Landscape where SunTec Xelerate provides functionality in the overall banking process flow. This was achieved through the SunTec Xelerate Application Cluster, where we mapped the identified Service Domains with their specific roles.
- Conducted composability tests. SunTec Xelerate validated alignment of business purpose of application modules with mapped BIAN Service Domains and their functioning in a composable architecture. These tests were responded from the three facets - business functional coverage, scope of business information, and completeness of offered business services.
- Conducted content tests. SunTec Xelerate also confirmed the extent of coverage in alignment with the purpose of the respective Service Domains along with the payload coverage for the service adhering to the specifications provided by BIAN APIs. These tests also ensured that any extensions to the designs agree with boundary defined by their respective Service Domains.

Step 4: Conformance

- Quantitative rating mechanism discussed with BIAN.
- Proceeded with self-assessment based on rating and responses.
- Formal submission of Application Cluster and SunTec Xelerate responses done to the BIAN Certification Working Group.

Driving the BIAN Framework

Our commitment to adhering to industry standards is exemplified by our efforts to drive and align with the BIAN framework. Our product architecture is carefully crafted to align seamlessly with the principles and guidelines outlined by BIAN, ensuring compatibility and consistency with industry best practices.

This alignment brings several significant benefits to our customers and the industry. By adhering to the BIAN framework, our products offer enhanced interoperability, enabling easier integration with existing banking systems and third-party applications. This interoperability fosters greater agility and flexibility for banks, allowing them to adapt quickly to changing market dynamics and customer demands.

Furthermore, our conformance to the BIAN framework promotes industry-wide standardization, facilitating collaboration and knowledge sharing among banks and technology providers. This standardization streamlines the development and deployment of banking solutions, reducing implementation time and costs for financial institutions.

Overall, our conformance to the BIAN framework underscores our dedication to delivering cutting-edge solutions that meet the evolving needs of the banking industry. Through this alignment, we aim to empower banks to embrace innovation, drive operational efficiency, and deliver value and superior customer experiences in an increasingly competitive landscape.

Conclusion

In conclusion, by adhering to BIAN's standard, we ensure that our products meet the highest levels of quality, interoperability, and innovation, enabling banks like yours to thrive in an increasingly digital and competitive landscape.

We remain committed to driving industry-wide standardization, fostering innovation, and empowering banks to deliver exceptional customer experiences.

Together, we and our partners aim to shape the future of banking, driving positive change and innovation that benefits customers, stakeholders, and the industry.

About SunTec

SunTec is the world's No. 1 pricing and billing company that creates value for enterprises through its Cloud-based products. More than 150 clients in 45+ countries rely on SunTec to provide hyper-personalized products, offers, pricing, loyalty programs, tax compliance, and billing for over 400 million end-customers. SunTec products are based on our cloud-native and cloud-agnostic, API first, micro-services-based proprietary platform, Xelerate and are delivered on-premise, on private cloud and as SaaS. SunTec has global operations including the USA, UK, Germany, UAE, Singapore, Canada, Australia, and India. For more information, please visit us at www.suntecgroup.com or email us at marketing@suntecgroup.com