

Validating the Harmony of Data Communication While Integrating Complex Bank Systems

ORGANIZATION

Our client is a global financial services leader, and one of the world's 30 largest financial institutions is recognized worldwide as a premier lender to agriculture. The client's Australian operations handle core businesses providing the products and services for primary producers, agri-business enterprises, and large food corporations.

They offer various products; some examples include Farm Loans, Deposits, Corporate lending solutions, High-Interest Savings Accounts, and Premium savers tailored based on the different needs of their customers. The bank has over 120 years of experience creating customer value with its products and innovative services.

CHALLENGE:

With their primary focus on providing their customers with the best service, value, and expertise, our client wanted to enhance the customer's ability to share banking data with third-party accredited organizations as introduced by the Government under Consumer Data Rights (CDR).

With the data sharing mandated, the bank wanted to allow their customers to share their data, ensuring that they meet the eligibility business rules while adhering to the security standards. Specific data from multiple systems had to be gathered, transformed, and retrieved for the customers to share. The bank was also parallel upgrading its legacy systems to applications developed in cutting-edge technology. One of the main challenges was that multiple complex systems (Temenos, Pega, etc.) handled different business solutions for their banking needs and were in silos. In addition, the QA environments were different for each application, making it difficult for the test data setup. Therefore, there was a considerable need to test the data security and quality shared via APIs only to third-party accredited vendors who meet specific security standards.

The key challenges were:

- Data is collected in silos from different systems that had to be integrated with Azure Cosmos DB
- Data privacy and security had been the prime focus as the customer's personal data is shared with third parties
- Each of the functionalities/enhancements done to the Open Banking APIs had to be tested across various products and services ensuring consistency across sectors
- Many APIs had to be tested for compliance with the standards as non-compliance may constitute a breach of Government laid CDR rules
- QA had to have a complete understanding of multiple complex systems to quickly understand and perform the root cause analysis in case of any observation
- Every system was having different lower environments making it even more difficult to test Open Banking

TECHNICAL SOLUTION

The project followed the simplified scale of the Spotify model. XTIVIA worked closely with different squads comprising multiple stakeholders to achieve a quality and timely product. Although the QA team was deployed without any formal knowledge transfer sessions, the XTIVIA team was quick enough to grasp the requirements/domain knowledge and deliver the monthly major/minor releases. As part of this engagement, XTIVIA focused on the following areas:



- Strategize integration testing involving various complex systems to ensure smooth and successful data flow [Hybrid Approach]
- Work with different squads to identify the dependencies/data flow between different systems
- Take complete ownership of QA deliverables
- Drive the integration testing of requirements changes in systems at the bottom connecting with other systems
- Enhance the existing API automation suite for new features/products
- Work closely with different stakeholders and squads to deliver e2e quality solutions adhering to the compliance requirements
- Exhaustive test preparation to unearth incompatibility between different systems
- Comprehensive analysis of the system as a whole to reduce any connectivity issues
- Communicate proactively to the respective squads regarding all the system/environment-related issues expediting the resolution to ensure timely delivery meeting the compliance deadlines

BUSINESS RESULT

XTIVIA's testing team with their Integration testing solution, ensured the data communication between the different systems worked smoothly. The team successfully delivered a compliant and quality customer experience via the client's open banking solution by overcoming several impediments like test data setup and different systems working in silos.

KEYWORDS

Application Integration, Azure Cosmos, Azure Service Bus, Application Programming Interfaces (API), REST, JWT, JSON

SOFTWARE

Rest API, Azure Cosmos DB, Azure Service bus, Postman, Temenos, Pega, Selenium Protractor

ABOUT XTIVIA

XTIVIA is a proven technology integration and innovation company known for delivering leading-edge technology solutions to our clients' specific requirements, regardless of project complexity. We bring next-level business operations to reality through Application Development, Business Intelligence, Data Warehousing, Database Support & Management, Enterprise Information Management, Digital Experience Solutions and Enterprise Resource Planning. Our success stems from a demonstrated ability to deliver deep expertise via professional services, empowering clients to leverage their chosen technology successfully, competitively and profitably. XTIVIA has offices in Colorado, New York, New Jersey, Missouri, Texas, Virginia and India. www.xtivia.com