



**brillio**

# Simplifying regulatory navigation in open banking

**Championing an open banking go-to-market strategy demands a rigorous balance between driving innovation and managing regulatory obligations.**

## **Recapping the road so far**

The early 2000s saw some open banking trends emerge in the EU, with regulatory legislations like the PSD2 (payment services directive) standard, the legal foundation of the EU's payment services framework. Fintech companies began to thrive, and customer-centric banking emerged soon after. Traditional banks joined the trend as well with banking-as-a-service offerings. Retail consumers and SMEs started realizing the benefits of open banking through a series of new products and services provided by fintech companies. However, screen scraping remains the most popular method of collecting customer data in the US and Canada, and fintech companies mainly popularize it.

Screen scraping poses several security challenges. The most critical is the risk of sharing banking credentials and financial information with unregulated third parties. Financial regulators are now striving to standardize open banking laws globally to replace the security risks associated with screen scraping. Furthermore, financial institutions (FIs) today seek to implement strategies that optimize costs and cut discretionary spending through secure, low-cost, quick-to-market solutions that can boost the top and bottom lines.

There have been attempts in the US to address these issues, mainly driven by ecosystem participants. The introduction of the Financial Data Exchange (FDX) in 2018 accelerated the creation of new open banking standards in the US. Nine of the top 10 banks in the US have since adopted FDX open banking standards, bringing over 12 million customers from screen scraping to a version of the FDX API. By adopting open banking APIs, data aggregators are addressing the security challenges of screen scraping. So, what does this mean for open banking in the US? Regulations will drive competition, leading to bank-fintech partnerships in the US. Consumer control over data to share and enhanced security have taken over. The Consumer Financial Protection Bureau (CFPB) has already released a proposal on personal financial data rights in Oct 2023. The proposed rule intended to accelerate a shift toward open banking in the United States, establishing a comprehensive regulatory framework providing consumers and their authorized third parties with the rights to receive structured, consistent, and timely access to consumers' financial data held by financial institutions and by imposing limitations on authorized third parties' collection, use, and retention of that data.

## **Driving momentum toward the road ahead**

One of the biggest challenges in the sphere of open banking will be to simplify regulatory comprehension. FIs must adapt seamlessly, ensuring they remain compliant in a constantly evolving landscape. Advanced high-grade security standards and data security architecture will be another critical focus area. Another exciting area is experimentation and innovation with a flexible and scalable open banking architecture. FIs must explore value-added use cases around embedded finance and lifestyle finance. Furthermore, there will be a significant exploration of value-added use cases in SME and commercial banking via open banking. We will also see the adoption of modular architectures and integrated data structures that enhance systems' scalability, flexibility, and efficiency, fostering agility, innovation, and resilience while ensuring interoperability and reliability.

# Addressing open banking's regulatory hurdles

The main challenges that FIs face today include:

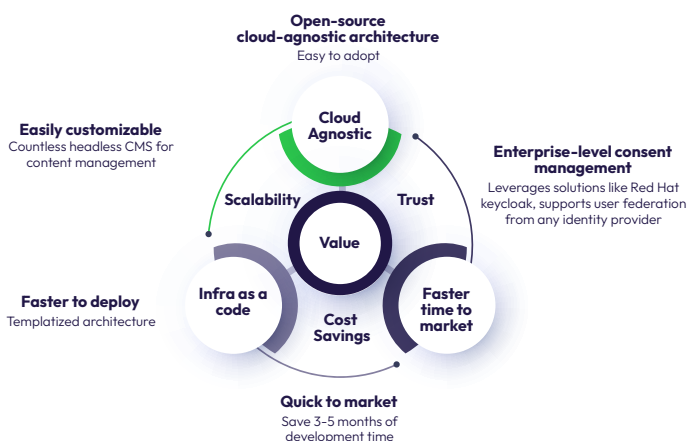
- Providing highly secure APIs that meet the regulatory demands of open banking.
- Creating an API marketplace for third-party developers to subscribe and test the APIs that create value-added services.
- Obtaining, storing, and validating consent from customers to share data.

Our experts in IT services for banks at Brillio can help you build an open banking strategy to address the above challenges. Evaluate your infrastructure, technology stack, and regulatory compliance measures and leverage our open banking playbook, solutions, and accelerators.

## Embracing Brillio's open banking playbook

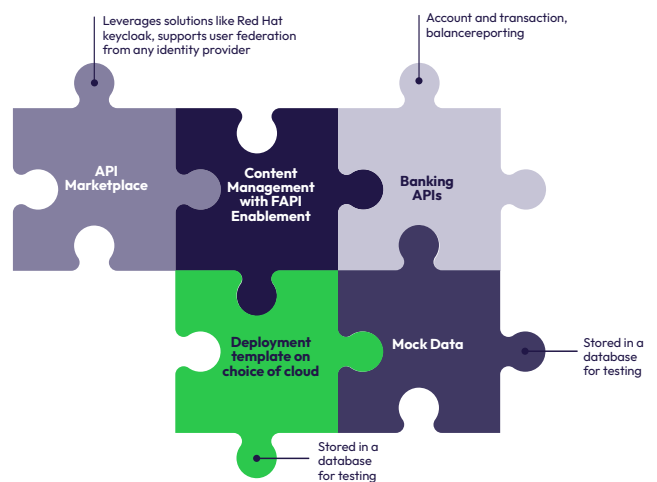
### We aim to help banks and FIs

- Offer high-security APIs by implementing FAPI
- Publish banking service APIs at the enterprise level API marketplace
- Implement consent management (client consent for sharing data)



### The solution is powered by an open cloud-native architecture

Major components include:



### Value add for banks and FIs

- Additional revenue stream through monetizing the banking services API (value-added services, embedded banking, open finance)
- Meet security and regulatory requirements like open banking and SR 21-14 authentication and access to financial institution services and systems

An open cloud-native architecture drives our open banking solution. With this solution, banks and financial institutions will be able to:

- Offer high-security APIs by implementing financial-grade APIs.
- Publish banking services APIs in an enterprise-level API marketplace.
- Implement a consent management solution to maintain client consent for sharing data.

The solution includes five key components as follows:

**1**

**API marketplace:** Enable third-party developers to access your APIs and integrate various functionalities into their applications.

**2**

**Consent management with FAPI enablement:** Manage user consent in compliance with the regulations and enable financial-grade API (FAPI) standards, ensuring secure and standardized handling of sensitive data.

**3**

**Banking APIs:** Standardized APIs enable third-party developers to access banking services and data, fostering innovation and integration in the financial sector.

**4**

**Mock data:** Readily available simulated data used for testing and development purposes, shielding your core systems.

**5**

**Deployment template for the cloud:** Templated configurations to enable fast deployment of applications or services on any cloud infrastructure.

The open banking solution will unlock new revenue streams for banks and FIs by monetizing banking services APIs (value-added services, embedded banking, and open finance). Furthermore, the solution will meet security and regulatory requirements like open banking, SR 21-14 authentication, and access to FI services and systems.

## Implementing an end-to-end open banking solution

Deployment of sandbox for open banking	API security assessment	Complete open banking implementation
0-2 weeks	4-6 weeks	3-6 months
<ul style="list-style-type: none"> <li>• CloudFormation templates</li> <li>• Infrastructure architecture diagram with network configuration and compute services</li> <li>• Automated deployment pipelines</li> <li>• Document the setup process, configuration parameters, dependencies, and troubleshooting steps</li> </ul>	<ul style="list-style-type: none"> <li>• Security best practices (encryption, access controls, data protection, and compliance requirements)</li> <li>• Implement PoLP (principle of least privileges)</li> <li>• Configure IAM roles, policies, and permissions to restrict resource access predicated by the principle of least privilege</li> </ul>	<ul style="list-style-type: none"> <li>• User registration and authentication, authorization</li> <li>• Consent management using Keycloak for user management, authentication, and consent management</li> <li>• API integration, profile management</li> <li>• Transaction history: Fetch and display transaction history from linked accounts</li> <li>• Deploy the mobile app using AWS Amplify for streamlined deployment, hosting, and CI/CD</li> </ul>

## Pioneering success for our clients

**Engineered a digital bank:** We introduced a disruptive mobile-first banking platform with a completely digital experience for the customer, from onboarding to servicing. As part of this, we built a five-layered security and API gateway feature to validate various services to different parties in the bank's ecosystem.

### What the client achieved

**\$150 million** increase in assets under management (AUM)

**23%** increase in operational efficiency

**Simplified payments experience:** We developed a proof of concept (POC) to create an authenticated customer experience to capture enrolment and check-in at a merchant kiosk. The POC was scaled up by building production-grade APIs that merchants can integrate with their on-premise kiosks for a smooth checkout experience. The solution provided an enrolment feature, enabling merchant partners to save payment credentials for future use. We also created a more straightforward checkout experience, increasing shopping frequency and consumer spending.

### What the client achieved

**75%** reduced time spent by a shopper at a kiosk

**Online banking and core banking platform enhancement:** Developed a scalable enterprise architecture from the ground up to support the digital transformation of the online banking platform using a microservices architecture and API-first approach, ensuring decoupling services and enabling the proper flow of information through the API. Microservices were implemented across multiple Oracle Flexcube modules to enable this transformation.

### What the client achieved

**85%** automation coverage for workflows within the bank ecosystem

**30%** faster time to market for new features

## **Building the foundation for open banking**

Embarking on the journey to implement an end-to-end open banking solution is akin to laying the foundation for a transformative financial landscape. It begins with a strategic vision, where FIs envision seamless connectivity, enhanced customer experiences, and unparalleled innovation. As businesses converge around this vision, meticulous planning takes center stage, mapping out every intricate detail of the journey ahead. From assessing the current infrastructure to envisioning future scalability, each step must ensure alignment with regulatory standards and industry best practices. With each milestone you achieve, the momentum will grow, propelling your organization toward a fully realized open banking ecosystem.

## About Brillio

Brillio is one of the fastest growing digital technology service providers and the partner of choice for many Fortune 1000 companies seeking to turn disruptions into competitive advantages through innovative digital adoption. We help clients harness the transformative potential of the four superpowers of technology: cloud computing, Internet of Things (IoT), artificial intelligence (AI) and mobility. Born digital in 2014, we apply our expertise in customer experience solutions, data analytics and AI, digital infrastructure and security, and platform and product engineering to help clients quickly innovate for growth, create digital products, build service platforms, and drive smarter, data-driven performance. With 17 locations across the US, the UK, Romania, Canada, Mexico, and India, our growing global workforce of nearly 6,000 Brillians blends the latest technology and design thinking with digital fluency to solve complex business problems and drive competitive differentiation for our clients. Brillio was certified by Great Place to Work in 2021, 2022 and 2023.



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