Open Banking, PSD2 and the New API Economy

Major developments bring cloud-native data integration and API management to the forefront of the technology strategies for financial institutions around the world.

Open Banking: Opportunity and Disruption

Much has been written about open banking and the benefits it brings for financial services customers, whether consumers or businesses. Very simply, open banking rests on the concept of using APIs to build products and services that enable consumers, commercial entities, and banks to interact with greater ease.

APIs (application programming interfaces) sit at the center of open banking because they provide a defined set of protocols, tools and methods to communicate between various applications or software components. APIs are now widely used across industries and software vendors to integrate different applications so they can more easily function as one system.

Open banking is driving financial institutions, a new generation FinTechs, and other financial services to interact with one another through APIs — rather than using screen-scraping or batch data files. Its end goal is to offer account holders unprecedented transparency into and control over their financial accounts, even if those accounts are distributed across multiple financial institutions.

Despite the promise of open banking and the ability of APIs to tie various systems together, open banking carries risks, among them ensuring all data privacy laws and policies are consistently and dependably addressed, regardless of where the data might travel.

Open banking also threatens the established financial services marketplace — and the role of traditional banks in particular. That may explain why some financial services institutions (FSIs) have been slow to take advantage of the opportunities offered by the API economy. At the same time, FSIs are struggling to bring the necessary speed and flexibility to their IT environments. Without such improvements, responding to open banking is difficult.

Many European FSIs are already familiar with open banking and the API economy. As just one example, the Open Bank Project bills itself as the “leading open source API and app store for banks.” The Project offers...
tools, a technology stack, and a development community to help banks “engage with next-generation innovators safely and securely.”

Now legislation from the European Union brings even more focus to open banking. The revised Payment Services Directive, or PSD2, is forcing banks in Europe to embrace new ways to integrate and govern data, especially through the use of APIs. Set to become law in 2018, PSD2 aims to open up payment markets to new entrants, with the hope of creating greater competition, more choices, and better prices for consumers.

In all regards, there is clear movement towards creation of a single payment market within the EU, with a strong focus on enhancing consumer rights and their control of financial information.

The coming of PSD2: What does it really mean?

PSD2 will no doubt have a significant impact on banks, consumers, and financial intermediaries in Europe and beyond. The basic implications of PSD2 are that:

• Banks must share their customer information if their customers want it shared
• Information sharing will threaten banks’ traditional revenue sources (interchange fees as one example) but will present opportunities for new revenue streams and expanded customer relationships
• Fresh players will enter the financial services market with innovations likely to be disruptive, at least in the near term
• APIs will be the primary mechanism by which information is shared and new services developed

API Mediation: What it is and Why It Matters

PSD2 will inevitably trigger changes in the marketplace. To respond quickly, banks will need speed and agility to adapt and modernize business applications.

A low-code, cloud-native development and integration platform can help turn business processes into rich software applications that connect employees, customers, partners, and core systems. An integration platform as a service (iPaaS) offers a lasting foundation on which an API framework rests.

To play an active and profitable role in the API economy, FSIs must be able to take existing systems, tie them together, and expose them as a unified service. The API mediation layer plays that role.

Banks and other financial institutions will need to adopt a mediated API strategy to enrich and control internal and external APIs. API mediation helps organizations meet security and compliance requirements, avoid the costs of hard coding point-to-point integrations, and develop an API framework to scale without losing control. All these factors gain increased importance when APIs become integral to revenue streams.
Architecturally, the API mediation layer sits between the “consumers” of API information, such as apps, devices and services, and the underlying data and applications that support them. The mediation layer can:

- Manage security and access control for stakeholders
- Track API services to ensure service-level agreements
- Improve system performance and scalability
- Support API versioning and custom APIs

Preparing for PSD2: API Management

Since data integration and governance play a critical role in the evolution of open banking generally and in the implementation of PSD2 specifically, API management and API mediation take on paramount importance for banks as they prepare for PSD2. And, as the open banking trend gathers momentum with legislation such as PSD2, it's changing the market in which API management vendors compete.

“There are fewer standalone API management vendors out there,” explains Sean Collins, product manager for Dell Boomi. “API management is starting to coalesce around iPaaS offerings that provide a unified environment to connect the underlying data and application ecosystem that APIs expose.”

As organizations prepare for PSD2, open banking, and the API economy, the need for a strategic and comprehensive API strategy is essential.
The importance of an API management framework

APIs empower businesses of all types to connect more easily with customers and to improve operations inside and outside the enterprise. But with the fast-paced growth of APIs, their benefits come with several management challenges, including:

- Who has access to diverse types of information? Do they have the right levels of access and permissions?
- How can you keep dependable service-level agreements and meet the expectations of developers for business-critical applications?
- How is the API used? Do you know when you’ve hit your threshold limit in terms of usage and number of users?

A solid API management framework allows your technical team to effectively create, publish, and manage APIs, supporting every stage of the API lifecycle.

Components of the API management framework

To deploy an API management framework, your organization will likely need an integration partner that can offer strategic planning and advice at each stage of the project. This assistance might also include training to bring integration and API management domain knowledge in house.

Regardless of your approach, the necessary end goal for your API integration strategy is clear: you must be able to move fast and with great flexibility. Market and regulatory demands evolve too quickly for traditional approaches to API deployments and integration management. Without a system for speedy development and streamlined control, your organization will struggle to keep pace with the changes being driven by open banking, new competition, and rapid technology advancements.

Create

Ideally, your integration partner can offer tools that allow APIs to be created through an easy drag-and-drop visual interface. Using an API “canvas,” developers can build APIs from new or existing integration processes with full lifecycle management (including versioning) in a low-code, high-productivity development environment. Ease of use increases API developer productivity and helps them ensure that APIs behave as intended, while optimizing the use of backend resources.

With this approach, FSIs can convert legacy SOAP web services into REST or OData (Open Data Protocol) services, preserving any SOAP web services investments. IT teams can also bring services together and organize them for API consumers, enriching data with external sources and transforming data for new applications via SOAP, REST, or OData-based APIs.

Publish

In the publish phase, your framework and integration tools will need to ensure you can rapidly expose any endpoint as a web service, including HTTP (SOAP/REST), FTP sites, databases, legacy applications, and cloud and mobile applications.

FSIs can deploy APIs with comprehensive security capabilities and multiple authentication options to meet the performance and security requirements of large enterprises. This makes it easy for FSIs to extend the reach of enterprise information and services to customers, partners and suppliers.

A robust framework keeps all published APIs in a catalog so you can easily track activity and usage patterns. The framework should also support operating API integrations on-premise, in the cloud, or any combination of the two. The right framework should be able throttle incoming requests and ensure proper service levels. Additionally, with IP filtering, FSIs can gate requests from only certain IP ranges for authorized users.

Manage

To function effectively in the API economy you need to centrally monitor and manage APIs across your infrastructure, regardless of geographical location or the platform on which they’re deployed. You must be able to view usage history, monitor traffic, check response times, and remediate errors via a central dashboard, ensuring optimal performance and the necessary visibility and control.

With managed discovery and access via the API catalog, you can expose APIs for API consumers and developers outside your organization. The framework should allow developers to define a version that will be exposed to consumers, while constantly assessing the use and relative value of the underlying services to determine whether any should be retired or supported with more computing resources.
The Value of a Unified, Cloud-Native Platform

As you think about the coming of PSD2 and the place your organization will occupy in the API economy, consider the value of a platform that can handle integration and API management in the same low-code, cloud-native environment. With such a platform, you can:

Deliver a world-class customer experience. Support all your data integration needs — including real-time application integration — from the same platform. You can also gain outstanding efficiencies with “economies of skill” (no need to work and train on multiple platforms) while dramatically speeding development times and boosting ROI.

Create composite applications across data sources while centrally managing underlying processes. Composite applications help businesses deliver an omnichannel customer experience. Regardless of the tools used, everything connects to the underlying processes. You can interact across business systems via back-end API interactions.

You can also modernize existing applications by unlocking legacy data as web services for new digital applications that function via lightweight APIs. And for big data, you can securely scale operations to analyze and act on real-time information from applications and smart devices.

Act at the speed of business and deploy APIs anywhere. APIs are best managed in conjunction with the underlying integrations that support your business. This facilitates rapid implementation with low upfront costs and lower total cost of ownership.

Some cloud-native platforms also add the flexibility to deploy and manage APIs on-premise or in the cloud. Such flexibility simplifies complex environments while unlocking the value of your data across applications.
Taking the Next Step

Certainly, PSD2 and open banking bring integration and API management to the forefront of the technology strategies for financial institutions around the world. Many FSIs want to improve interactions with their customers, partners and lines of business. And APIs are essential to accomplishing these goals.

To address the technical issues related to integration and API management, Boomi offers a unified, cloud-native integration platform with industry-leading capabilities for API mediation and management, security, privacy, and enterprise-grade performance. With Boomi’s low-code, configuration-based, platform, Boomi API Management increases the speed of any API project — from simple to complex.

APIs support the rapid adoption of applications that offer new functionality and a seamless experience across any channel. As you consider how your organization can successfully engage in the API economy, consider how you can deliver:

1. **Results and Services from the inside out**
   Tap into the “hidden” knowledge accumulated by diverse teams. Businesses have invested heavily in data sources, and now they’re looking for ways to realize measurable benefits from those investments. Search your organization for business and technology teams that have ideas and insights for how you can apply your data in new ways.

2. **Agility and speed at enterprise scale**
   Often, businesses must choose between agility, speed or scale. But, instead, think about business use cases where you can deliver all three. New development methodologies and tools can make this possible. Build new IT capabilities around these “triple threat” projects that will future-proof your business.

3. **Secure data access**
   Organizations need technologies that provide ease of use and uncomplicated data access while offering appropriate controls for the business units they support. Find the balance between access and data governance that ensures compliance with business policies, contracts and regulations.

To learn more, please contact the integration experts at Boomi. We can help your organization embrace open banking, prepare for PSD2, and successfully participate in the API economy.

To learn more, visit us today at [www.boomi.com](http://www.boomi.com)