A NEW ERA
OPEN PLATFORM BANKING

THE NEXT CHAPTER IN
WINNING IN THE
DIGITAL ECONOMY
INTRODUCTION

Open APIs and open platform banking are set to change the shape of financial services completely. As the platform economy takes ever greater hold in the industry, new possibilities for consumer propositions and the explosive impact of network effects are heralding a new era for banks—and for their customers.

In other industries, leaders like Google, Apple®, Facebook®, Amazon® and Alibaba (GAFAA) have already shown what technology-driven platform-based business models can achieve—and have been taking advantage of the strategies that those models enable for years. While the basic concept of the platform isn’t new, digitalization has made the building, scaling, and accessing of platforms far simpler and far cheaper. Platform businesses have also enjoyed explosive growth in a wide range of industries as a result, whether that’s Uber in transport, Airbnb in hotels, Amazon in retail, or YouTube™ and Facebook in ad-supported media.

Now, amid a surge of Open Banking APIs and a regulatory push to open business models, the platform economy is set to hit financial services in a big way. But what is the true impact of open APIs and open platform banking? And how will they evolve in the future?

Building from our recently published point-of-view on urgent business model choices facing retail and commercial banks, this paper explores these questions in depth. It illustrates the role of open APIs across the four winning business models we identified and goes deep into the market dynamics of the open platform model, taking a snapshot of the various types of platform models, their key capabilities, and our analysis of the current and likely future market trends.
The value of the platform

Platform businesses connect producers and users in efficient exchanges of value. These exchanges facilitate interactions on both the demand and supply sides, which have amplifying “network effects.” In banking, the value of network effects can be seen in the business models of challenger banks like Starling, which launched in the UK in 2017. It operates its own core banking platform but relies on a network of ecosystem partners, accessed through APIs, for its other services including partnerships with TransferWise for cross-border remittances and Apple Pay® for payment acceptance (Fig. 1).

The value of these partnership services leads an increasing number of consumers to use Starling for their everyday banking needs. And that, in turn, creates network effects—more customers create more partnership opportunities for the bank.

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**FIGURE 1. The Starling ecosystem**

- **Flux**
  - Loyalty and receipts

- **Apple Pay**
  - Payments issuing

- **TransferWise**
  - Cross-border payments

- **Moneybox®**
  - Savings and investments

- **Tail Offers**
  - Rewards and cashbacks

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Core banking
Platform banking models

According to Parker & Van Alstyne, aside from producers and consumers, a platform also requires one or more sponsors (someone to control who participates and resolve issues like intellectual property) and one or more providers (someone to provide an interface visible to producers and consumers).

Both providers and sponsors play an important role in controlling the openness of a platform, and the way they interact has been used to categorize four different types of platform models:

**PROPRIETARY PLATFORM (ONE SPONSOR, ONE PROVIDER)**

This is a closed platform in which the sponsor has complete control over the provider. In financial services, proprietary platforms use open APIs to make data accessible to developers and to offer finalized products to customers (both B2B and B2C). Banks give developers access to their sandboxes, which allow them to experiment and then bring finished products to the market. APIs are also used by third parties to consume products and to develop innovative applications on top of existing products. As an example, The API_Market (the provider) is a sandbox created by Spanish bank BBVA (the sponsor) which uses open APIs to allow external developers to experiment freely, while restricting access to the production environment.

**LICENSING PLATFORM (ONE SPONSOR, MANY PROVIDERS)**

This kind of platform enhances network effects by using a variety of providers. As an example, SolarisBank offers a white label banking platform for both financial services organizations (banqUP and Cashlink) and non-banks (AutoScout24). It positions itself as one of the first banking platforms which non-banks can use to operate banking products under its license. Fidor Bank is another example of a bank operating through a license platform.
**JOINT VENTURE PLATFORM**  
(MANY SPONSORS, ONE PROVIDER)

In this type of platform, several sponsors collaborate to create and control a single interface. Although rare in financial services, this model is evident in the CAPS market initiative.⁴ CAPS was formed by a number of banking and market infrastructure players to establish a standard for PSD2 as well as open APIs. It encourages fintechs and third parties to use the platform to develop new products and business propositions.

**CAPS**

Bankgirot  
Isabel Group  
Fidor Solutions  
Nets

**SHARED PLATFORM**  
(MANY SPONSORS, MANY PROVIDERS)

In this type of platform, no single party controls development while multiple providers may exist. To date, no example of this model has been seen in the banking industry. In the non-banking industry, an example of such an innovation is Linux.
Comparing platform models

In comparing these models, understanding the extent of their network effects and how they create value is key. Other important characteristics include: the pace of application development, application quality control, the derogation risk (risk for the sponsor in terms of quality, expectations, etc.), and the extent of customer reach (Fig. 2).

A proprietary platform takes a centralized approach to network effects. While this impacts its customer reach, it also enables close monitoring of quality and speed of application development. For these reasons, incumbent banks are using proprietary platforms as a reasonably safe way of exploring the value of open APIs. But, since sponsor and provider are so closely linked, the derogation risk for the sponsoring bank is high.

In enabling partners to develop their own products, the licensing platform takes a more decentralized approach. This has a low derogation risk for the sponsor since a provider’s name is attached to the platform interface. Moreover, quality control and network effects are down to each individual provider. Customer reach is high thanks to a potentially unlimited number of outlets/providers. Therefore fintechs and new banks are developing Platform-as-a-Service (PaaS) offerings (for example, Monzo) to enable banks and non-banks to create and use banking applications and leverage their ecosystems.

Products on a joint venture platform are based on a consensus of participants. While this secures product quality, it can slow development and discourage network effects. These platforms are rare in financial services, but may be likely in situations where, for example, a large number of banks want to develop a new banking standard (the involvement of many sponsors helps set a new standard, and wide reach, straight away).

Shared platforms are unlikely to be of much interest to banks. They offer no control over application development, involved parties, or the direction of the platform.

Of these models, the licensing platform has been seen to act as a true catalyst for platform banking. Not only does it best enable developers to create innovative products, it also increases reach by involving a variety of providers, each of which can attract customers separately. However, the complex legacy technology used by incumbent banks will restrict their ability to innovate with this model. Fintechs and neo banks, on the other hand, are highly likely to explore its potential.

FIGURE 2. Platform characteristics and value

<table>
<thead>
<tr>
<th></th>
<th>Network effect platform</th>
<th>Application development</th>
<th>Application quality control (provider)</th>
<th>Derogation risk (sponsor)</th>
<th>Reach</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proprietary platform</td>
<td>Low</td>
<td>Fast</td>
<td>High</td>
<td>High</td>
<td>Medium</td>
</tr>
<tr>
<td>Licensing platform</td>
<td>Depending on provider</td>
<td>Fast</td>
<td>High</td>
<td>Low</td>
<td>High</td>
</tr>
<tr>
<td>Joint venture platform</td>
<td>Medium</td>
<td>Slow</td>
<td>Medium</td>
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</tbody>
</table>
Whether it adopts a proprietary or a licensing platform, a bank’s transformation to an API-connected platform-based business model will require shifts in the deployment of resources, people, and technology. Existing products will need to be ‘atomized’, and new products and processes identified. Indeed, Open Banking calls for nothing short of an overhaul in traditional banking capabilities.

So what needs to change? We’ve identified the key organizational, functional, and technical capabilities that will help enable a bank’s evolution to an open platform.

**Organizational capabilities**

**OPEN API STRATEGY**
An open API strategy needs to enable network effects and work with a partner strategy to do so. Bank leaders should be looking to drive a digitally centered transformation to achieve this. Doing so requires an unusually high level of coordination of cross-bank initiatives, spanning prioritization, resource allocation, and collaboration in execution. The challenge is to lead a holistic change program that addresses the necessary culture, systems, and capabilities simultaneously. It requires investment, painstaking planning, and coordinated decision making across the whole bank.

**RELATIONSHIP MANAGEMENT**
Today’s relationship managers and banking sales representatives may not fit easily into an open platform model. Instead, a dedicated front-office capability to oversee relationships with new B2B customers, developers, and developer community builders will be required, much in the same way as software companies currently work.

**PRODUCT DEVELOPMENT**
An open API is not a feature. It’s a product in its own right, but nurturing open APIs and data to extract value is a new undertaking for banks—hence the need for new roles such as data scientists to better clarify the B2B and B2B2C monetization possibilities. Furthermore, because an API-connected platform builds a network of partners, it brings scalability and additional revenue to the bank. Those partners can either integrate a bank’s products or build custom tools and functionality on top of them (such as a point-of-sale credit API leveraging an existing credit product). A partner network thus automatically creates new sales channels that would not otherwise be possible.

**PROJECT MANAGEMENT (AGILE DELIVERY)**
Banks need to rapidly acquire or experiment with high-value initiatives, while showing tolerance of failures in a trial and test culture. Agile delivery at scale is an essential capability, although banks must recognize that it isn’t right for every single development. The goal for business and IT teams is to be able to come together and develop a new API at pace and then decide whether to expand or withdraw it. It currently takes 6 to 18 months to launch a credit card, for example. In contrast, it should take just a few weeks to launch a new credit API.

**WORKFORCE**
Open Banking also calls for banks to change faster, operate more quickly, make smarter decisions, stay relevant to customers, outdo competitors, and keep pace with new technologies and new regulations. To do so, they need nimble workforces, the right digital technology to build flexibility into those workforces, and they need to attract and retain top digital talent, including technologists and inventors from other industries.
Functional capabilities

IDENTITY AND ACCESS MANAGEMENT
Banks should help developers and IT leaders build, maintain, and scale seamless, personal, and secure experiences across the API connected platform. The platform should follow an identity-driven policy, using a powerful policy framework based on user profile, group membership, network zone, device, client, user or administrator consent. The platform provider should offer a plug-and-play Identity Software Development Kit, to let developers spend more time on the core value of their app and less on security.

CUSTOMER OFFER MANAGEMENT
Customer journeys should be compelling and highly differentiated, combining personalization, speed, and ease of use for all processes. Banks need to act quickly to acquire deep capabilities in user experience and user interfaces by leveraging data securely, quickly, and efficiently.

ECOSYSTEM ANALYTICS
Analytics is a key means of creating better outcomes for API-connected parties, customers, and other stakeholders across the entire ecosystem. Over time, the data generated by the ecosystem increases exponentially, and it becomes progressively difficult to use traditional tools to analyze that data. Banks therefore need better tools and technologies to bridge the gap between data generation and data analysis and to pave the way for machine learning.

Technical capabilities

API LIFECYCLE MANAGEMENT BY DESIGN
In essence, an open API is a bank product with a versioning-based life-cycle. A bank must therefore manage the API lifecycle within its ecosystem. A new version of an API is effectively a new product for a bank’s ecosystem customers and should be designed with lifecycle management at its core. Each new version must ensure backwards compatibility until the end of the agreed lifecycle is reached. Lifecycle times and the discontinuation of older versions must be communicated effectively to ensure the ecosystem has time to adapt to the new version.

API SECURITY
Because an open API is directly supplying the ecosystem with core banking data (account details, payment transactions, etc.) a bank must ensure it has the necessary technological capabilities to manage security and build trust. Indeed, as an extension of its base IT security capability, a bank’s API security capability should be compliant with the same protocols, including data governance and data management capabilities, as any other customer-facing application. Moreover, it is important to apply a consistent set of security policies on top of all exposed API services. Banks should therefore:

- Use safe transfer protocols such as API keys and OAuth2;
- Have a coherent and communicated set of policies to protect against SQL, JSON, and regular expression threats;
- Impose IP restrictions and protect against malicious bots within API management security policies;
- Handle spikes and volume changes in API consumption to control traffic; and
- Ensure auditing and logging of API calls and provide SAML authentication to directories.
API MANAGEMENT
A bank must be able to manage an API gateway for both internal and open APIs. An API management tool lets a bank set clear acceptance criteria for publishing and consuming APIs and allows it to enforce security measures and protocols as well as provide the source for traffic monitoring and analytics. Furthermore, it provides a means to manage API lifecycles and security measures and to enable API analytics capabilities.

API ARCHITECTURE AND DESIGN
An API is a product that exposes a process and its supporting activities to any authenticated user. This exposure is crucial. It means the API must meet the same standards as an application or a product. Design, governance, and usage monitoring are therefore essential requirements.

A bank must be able to create high-quality and well-designed APIs that meet a defined set of architectural and design principles. A proper API architecture capability will enable a bank to manage consent for its consumption of distributed APIs within the ecosystem, ensure consent is given for the consumption by others of its APIs, and offer an audit trail governing the input and output of data (Fig. 3).

INFRASTRUCTURE
Just as in any other modern software development, the open platform bank must be able to create and control a number of API environments to simplify testing and automation. Modular deployment is essential, and infrastructure capabilities should allow for the load balancing and auto-scaling of API servers.

IDENTITY ENDPOINTS
Authorize and authenticate oAuth2 flow endpoints

<table>
<thead>
<tr>
<th>API ENDPOINT</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>GET Access Token</td>
<td>Generate a new access token</td>
</tr>
<tr>
<td>GET Authorization Token</td>
<td>Generate an authorization token</td>
</tr>
</tbody>
</table>

ENTITLEMENT/CONSENT APIs
PSD2 requirements related to user consent/entitlements

<table>
<thead>
<tr>
<th>API ENDPOINT</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>GET Entitlements</td>
<td>Get entitlements for given customer, third party or account</td>
</tr>
<tr>
<td>CREATE Entitlements</td>
<td>Post entitlements for given customer, third party or account</td>
</tr>
<tr>
<td>EDIT Entitlements</td>
<td>Get, update or delete entitlement</td>
</tr>
<tr>
<td>VALIDATE Entitlement</td>
<td>Validate entitlements for given customer, third party or account</td>
</tr>
</tbody>
</table>
In this transition to Open Banking, traditional banks shouldn’t necessarily try to replicate the large digital infrastructure platforms associated with broad developer communities and distributed services such as those from Google, Facebook, and Apple. The rapid acquisition of users witnessed by many of those successful platforms in other industries is unlikely to be repeated in financial services. While developing markets may provide some opportunities for rapid scaling in banking, most mature markets are saturated and customer acquisition costs are relatively high. Furthermore, active developer communities are crucial for accelerating the development and scale of platforms. While they generally prefer large user bases to scale their applications, most banks lack a big enough customer base to support a commercial developer community.

That said, there is much for banks to learn from successful platforms in other industries, in everything from aligning incentives with third-party vendors to scaling multi-sided marketplaces. But banks must be creative in how they design their platform strategies for the markedly different competitive environment they are entering. And as that environment evolves, they must be alive to several likely developments on the horizon.

Firstly, features like account aggregation will quickly become a commodity. Much like mobile banking, this is likely to become a necessity in preventing leakage but is unlikely to drive any real future growth.

Secondly, the effects of Open Banking will be much broader than core functions like making payments and accessing account information. Indeed, banking functions could well become invisible as they embed themselves seamlessly into the everyday activities of consumers, retailers, and numerous other businesses—banking as living business.

Banks must be ready to respond by working with a wider network of partners. That might involve blending services to target deep and specific financial moments using external API services. This will also help banks expand beyond their existing customer bases by providing valuable functionality for other industries—confirming customer affordability, real-time reconciliations, etc. Moreover, this expansion of potential users will be crucial in nurturing a larger active developer community that can accelerate product development and platform growth.

So, to implement an Open Banking platform strategy, banks should look at five key steps today:

- **Evolve an open platform model.** Start by strategically embracing an open platform banking model, and identify the key capabilities and investments needed to make it happen.

- **Cover the basics.** Account aggregation might prevent leakage but is unlikely to drive any real growth. Instead, target deep and specific financial moments using external API services.

- **Beyond banking.** Look for partners to deliver premium APIs that can expand target user groups and incentivize third-party development.

- **Develop strategic ecosystems.** Successful open platform banks will create business models through strategic ecosystems of partners to create an environment for network effects to take hold. So, choose an ecosystem model close to your strategic priorities and market positioning.

- **Develop new business models.** Think afresh about revenue models, product development, and how to commercialize the evolution of open APIs.

These initial steps will help ensure banks are well-positioned to exploit the strategic differentiation and network effects that the new era of open platform banking offers.
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ENDNOTES
2 Ibid.
4 https://www.caps-services.com/

www.accenture.com/OpenPlatformBanking

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