

THE API ECONOMY

WHY PUBLIC APIS ARE SO IMPORTANT

AUTHORS



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An API is a programmable doorway that enables separate entities to talk to each other in a standardized format. Decades ago, APIs were developed as a purely technical solution so that developers could utilize each other's routines. Then, APIs started being used as a means of sharing data within the boundaries of the organization – Internal APIs. Partner APIs evolved as the need for better information exchange and further integration prompted businesses to find new ways of collaborating and benefiting from one another. In the last few years, Public APIs came into the spotlight as the benefits they offered attracted the attention of public and private organizations. The growth in popularity of Public APIs, as way of creating superior value, accelerated with the rise of the mobile.

APIs have become the cornerstone of a business's digital presence and a bridge between the conventional and the digital business world. Their growth in numbers and significance has left its impact on the way businesses and administrations conduct their strategy, and has provided access for businesses to monetization channels not previously reachable. APIs have evolved from a supporting function to a critical determinant of organizational strategy and are increasingly entering board members' agendas all around the digital world. With the increasing influence of Public APIs come other developments that shape the way business is conducted today. The first of these is the rise of Business to Developer (B2D) as the dominant business model for the modern digitally-savvy organization. An API's status as a "digital glue" stems from the ability to synthesize data together, from disparate or partner ecosystems, and drive the new business model of B2D. As the Digital Industrialization is advancing, fueled by the drive for standardization and integration, APIs have come to play a pivotal role both as a means of standardizing, as well as a tool to manage change. Among the numerous benefits offered by APIs, most notable are the optimization of costs and the time saved. Other benefits include the improved time to revenue, the reduction of manual intervention costs, and the elimination of regular independent integration processes. Most notably, APIs promote innovation and agility within organizations. They give businesses the luxury to have real-time information about current developments and enable them to make quick, well-informed decisions for what course of action to take. APIs make organizations scalable and help businesses build valuable networks of partners, with whom to navigate the complexities of the business environment. By utilizing APIs, organizations "open up" new monetization channels and reach markets not previously accessible. These new business models ensure that data reaches those who can utilize it in the best possible value-creating way and to those who benefit from it the most.

PUBLIC APIS

What are the benefits?

Public APIs are beneficial for organizations because they enable them to build valuable networks and strengthen ties with existing partners. In a business world in which collaboration trumps competition as the core value driving force, utilizing Public APIs is the best way to make relationships that would create the most value across the system. These relationships help organizations explore new opportunities and benefit from a transparent relationship. Partner APIs make B2B dealings more transparent and promote trust between organizations. Public APIs empower customers by giving them a broader range of choice and better information. Furthermore, the use of APIs creates a documentation trail, which in turn helps improve transparency and improves compliance. APIs significantly improve communication between the organization's various stakeholders and enables them to engage more actively in the dealings of the organization. Since APIs synthesize extensive amounts of data, they are crucial for collecting and analyzing feedback. This data is in real-time giving a good indication of how others perceive the business at this current point in time. Alternatively, APIs can also be used internally for KPI management, which in turn helps organizations to position themselves favorably in the marketplace. Public APIs ease consumer choice and help organizations benchmark themselves against their competitors. Having a Public API signals to all other players in the marketplace that the organization is trustworthy.

A unique aspect of Public APIs is that value is created through differentiation and the use of data and services outside the organization's control, by third-party developers. The first benefit results from the real-time data that is coming in, prompting immediate assessment of the situation and allowing the ability to react as events unfold. Public APIs cut costs by centralizing and integrating organizational processes. This centralization

helps eliminate costs of regular independent integration processes and manual intervention costs. The ability of APIs to incorporate constant change and continually adapt is what ensures that the above-mentioned benefits of Public APIs continue to hold over time.

Public APIs can be viewed as a mediator of change and innovation within an organization. Besides the passive role of constantly adapting to changes as they happen, Public APIs could be used to create a strategy that would guide an organization through future uncertainties. Furthermore, Public APIs can be used to take advantage of the growing popularity of the mobile among consumers. The use of Public APIs expands the existing infrastructure and helps support the increasing number of things that are connected to the internet..

Transform. Innovate.

Public APIs make us rethink the use of our assets and prompt us to fully utilize the benefits which arise from their use, by re-defining them in the digital space. In this new world where the use and re-use of a company's tangible assets, through digital, becomes crucial for an organization's continued existence, we have to rethink the methods we use to exploit our assets and the know-how we possess. Through Public APIs we can unlock the full potential of these assets and "open up" revenue streams not previously accessible through conventional business strategy. Public APIs promote flexibility, by providing new routes to market and re-defining how the firm earns its profits, as well as increasing the agility of application and cloud integration. The key advantage of having a Public API is that it enables omnichannel distribution and reduces the time to market.

Public APIs enable us to reach new markets and customer segments with increasing ease and at an almost negligible cost. This allows businesses to pursue opportunities as they emerge and give corporations the flexibility needed to adapt to the increasingly volatile

Public APIs are pivotal when it comes down to synthesizing information from different functional divisions. However, Public APIs are also a part of, and in turn shape, a bigger process that is emerging – namely, the Digital Industrialization.

business environment. In addition, since Public APIs use a structured approach, they also help to manage risk and to promote transparency. The structured approach, which the use of APIs promote, is also beneficial for analytics and optimization as it provides a detailed description of the various elements involved in real-time. Additionally, since Public APIs give access to data in real-time, they help us to understand the current situation in which the business operates. This is a good starting point from which businesses could then simulate a scenario and thus build a relevant strategy.

Furthermore, the scalability of Public APIs allows organizations to stay on top of demand and adapt to changes as they occur. This quality is critical to survive and thrive in dynamic industries such as financial services. As corporations and governments realize the efficiency and cost effectiveness gains that can be realized through increased transparency and integration, a new governmental policy such as PSD2 in payments, drives towards “opening up” data and the rise of

Public APIs. By promoting standardization, Public APIs are at the center of the digital revolution. These developments put traditional business models under pressure and bring new opportunities to create revenue. By adopting a “Public API” approach to strategy, organizations significantly reduce the speed of completion of a transaction and bring transaction costs to a minimum. Public APIs are constantly evolving under the pressure of the external environment, hence diligent API management is crucial in order to reap the benefits which Public APIs offer and avoid the trap of relying on a one-size-fits-all model. The cost of dealing with irregularities and the possible trade-offs in API management have to be taken into account. Traditional methods to assess costs would be supplemented by an emphasis on API management as a proxy for good cost management.

Public APIs play an increasingly important role in the overall value proposition of an organization. The network effects that come with Public APIs are a key aspect of generating new business, and expanding an organizational reach into new market segments. These network effects and built-in interdependencies would alleviate problems which organizations are experiencing linked to the increasing volatility in dynamic markets. Secondly, Public APIs and the network effects which follow from their use would help protect an organization’s market share

by solidifying its position amongst competitors. Organizations can then leverage this network to gain new business and explore new markets and previously inaccessible revenue streams. By utilizing Public APIs, organizations benefit from scalability. In addition, Public APIs enable organizations to react to external pressures in a timely manner and seize emerging opportunities.

As consumer preferences shift to mobiles and consumers expect to have access to more and more information with increasing ease, organizations are faced with a new set of challenges. Public APIs provide the solution to this new set of challenges that emerge. By bringing all the data together, they provide consumers with a comprehensive picture and a broad array of options.

APIs in Cloud Computing

APIs are what makes cloud computing possible. They bring elasticity and scalability to the cloud. Through APIs, applications and other workloads can be easily integrated into the cloud. Furthermore, APIs provide improved access to the cloud and ensure better cross-cloud compatibility. APIs help connect the application layer and the underlying IT infrastructure and make them well-suited to take advantage of any technological developments. They help extend the cloud to a larger ecosystem and streamline interoperability across the system. By linking





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disparate ecosystems, they help explore new sources of value and improve efficiency across the cloud. APIs are a really important element of disaster recovery and play a significant role in the automatization of processes across the cloud. In terms of cost, APIs make new developments cheaper and easier for implementation. Finally, they improve application functionality and help to manage the flow of data within the cloud better.

OPEN BANKING

The new banking environment and the challenges of open APIs

Public APIs are the key building block of Open Banking. Through Public APIs, greater access to public as well as private data from banks' databases is gained, promoting better transparency across the entire system. Public APIs in Open Banking enable an identical experience for each one of the bank's customers as part of the drive towards standardization. By standardizing every element of the consumer journey, Public APIs in Open Banking promote transparency, agility and efficiency. With the rolling out of PSD2, banks would be forced to participate in the API economy whether they like it or not. Keen attention to how financial services firms use Public APIs would prove to be a key differentiator in the marketplace. Most notably, Public APIs in Open Banking can be used to combine services from various financial institutions, and by doing so significantly empower customers. Furthermore, Public APIs in Open Banking permit new products to come to market more easily, thereby additionally disrupting the financial services industry. Due to their agility, Public APIs in Open Banking provide a future-proof infrastructure.

Concurrently with the rise of Public APIs and Open Banking comes the rise of Fintech firms. Attention is then shifted to competition between traditional banks and third-party providers for the largest share of the overall consumer journey. As this new competition takes shape, on the one hand,

banks struggle to retain their power, while on the other, Fintech firms continue to search for new and innovative ways to drive innovation and steal market share. Overall, the biggest benefit from these developments is derived for the customer. Customer benefit from this healthy competition is the lower price for payments. In addition, Public APIs in Open Banking enable customers to make informed decisions, by transparently laying out all available options, and to be able to more fully exploit their data. Furthermore, they enable customers to conduct detailed research about the firms who provide those offers. Public APIs in Open banking permit a comprehensive and integrated end-to-end experience, which is why traditional banks should use Public APIs to the maximum so that they don't lose their dominant position in the overall consumer journey. The key benefits for financial services firms of using Public APIs in Open Banking range from gaining deep insight about their customer base, helping them streamline operations, reducing costs, to ensuring they meet regulatory requirements. Open Banking promotes healthy competition, efficiency, flexibility and bolsters innovation. Public APIs in Open Banking create value for all key players along the consumer journey, especially for the customers.

Financial services firms move towards a new financial market for customer choice, third-party services, and open data. In order to remain on top of all these new developments and ensure they stay competitive, financial services firms have to actively engage with their clients. To be able to capture the revenues that millennials generate, financial services firms need to provide convenient banking solutions which can be easily accessed through mobiles. Furthermore, there is an evident shift in millennial preference towards more innovative banking solutions, as well as less loyalty to only one bank. For financial services firms, customer focus and agility become the main differentiators and value drivers in the new market environment. As new technological advances keep emerging, so do new opportunities for financial

services firms. The firms which extensively use Public APIs have the greatest agility and are therefore poised to take full advantage of new technological advances in the mobile world, advances in Cloud technology, and IoT. In addition, Public APIs in Open Banking would bring a currently fragmented market closer and enable financial services firms to serve it more efficiently.

Having a Public API expands financial services firms' digital presence. Furthermore, Public APIs strengthen relationships with already existing customers by enabling them to do more. Public APIs in Open Banking help exploit new revenue streams and are a key innovation driver within the organization. Using Public APIs in Open Banking would mean that new banking solutions would be developed more quickly. They promote efficiency and smoother customer interactions, which in turn deepens the customer relationship and boosts customer satisfaction. Customers can compare and save on current accounts, lenders could offer borrowers better terms for loans, and potential credit providers can use the data to tailor their loans better. Public APIs in Open Banking have the power to bring substantial benefits to consumers by aggregating their financial products in one place, as well as providing new insights about spending patterns and making recommendations about saving money; automating parts of the decision-making process and even offering new ways to pay. In addition, Public APIs enable both companies and consumers to send and receive data more easily and quickly. Public APIs in Open Banking enable an improved analysis of business dealings and superior monitoring capabilities through the standardized, transparent process they promote. Furthermore, because of the vast amount of real-time information coming in, financial services firms are more able to provide relevant recommendations to customers. Finally, Public APIs in Open Banking automate the payment process and prepare financial services firms to handle payment requests better.

Open banking means collaborative initiatives among financial institutions, and access and transparency for customers. Currently, banks aren't taking full advantage of the benefits Open Banking offers out of fear of becoming commoditized or disintermediated. This failure to incorporate an Open Banking approach, however, may become the exact reason why they are being disintermediated by Fintech firms.

PUBLIC SECTOR

Empowering the Public Sector

The use of APIs in public sector administration is beneficial for both citizens and governmental agencies. From the perspective of governmental agencies, APIs significantly reduce costs and improve efficiencies. Citizens, on the other hand, benefit from having unlimited access at any time. Furthermore, the use of APIs enables self-service and significantly reduces the time-frame in which standardized operations could be performed. APIs permit governmental agencies to securely share information among them, which in turn significantly improves interoperability. They permit governmental agencies to streamline their services into a mobile world and further push standardization across the system. In addition, their use would prompt citizens to be actively engaged in the whole process. The use of APIs in the public sector ensures a future-proof infrastructure that is agile enough to continually evolve as new technological advances occur. Promoting automation, APIs significantly cut both human costs and improve time to completion. APIs allow governmental employees to have more time to focus on jobs which are of critical importance and can't yet be automated. By connecting the separate agencies and

creating additional interoperability capabilities, governments can better protect their citizens by ensuring that information is available and relevant. They also ensure that information is up to date. Utilizing APIs in the public sector would help streamline the successful implementation of innovative projects and provide a convenient tool for enhancements.

APIs in the public sector, as well as other sectors, simplify otherwise complex processes and help connect separate entities, thereby promoting informational efficiencies in the system. This increased interoperability among governmental agencies empowers citizens by making them better informed and giving them the capabilities to do more. Greater availability and easier access to data, which APIs provide, help governmental agencies fulfil one of their key functions – namely, disseminating information to their citizens. Moreover, by doing so they ensure citizens are better protected and are familiar with the rights they are entitled to. The utilization of APIs in legal systems would shed off time from tedious legal procedures and would make the job of civil servants, involved in the creation and implementation of legislation, much easier. Additionally, APIs in the public sector would be invaluable for monitoring purposes because of the amount of real-time data they stream. They would also be useful for feedback purposes and can serve as an indication of what is working, what isn't, and how governmental agencies can improve it. Adopting APIs would be a critical step towards upgrading old legacy systems. APIs would also prepare governments to face the challenges of the new digital environment.

APIs in the public sector improve the productivity of governmental employees by

standardizing processes and promoting more transparent information. They help governmental agencies modernize and unlock their full potential by fully utilizing all available data in a transparent and efficient way. Furthermore, with APIs you only need to update your data once and it would be reflected on all platforms. Another benefit is that governmental agencies can easily distribute content through multiple channels. APIs are key for exchanging data and conducting operations online. They are a critical component of the digital modernization which is sweeping across both the public and private sector. APIs ensure compliance with existing regulations and adherence with security standards. In addition, they have improved electronic data exchange and co-production of services. Overall, by incorporating APIs, governmental agencies would be able to provide a comprehensive integrated experience for citizens and ensure they're not missing out on technological developments that could further boost interoperability.

Government to Business

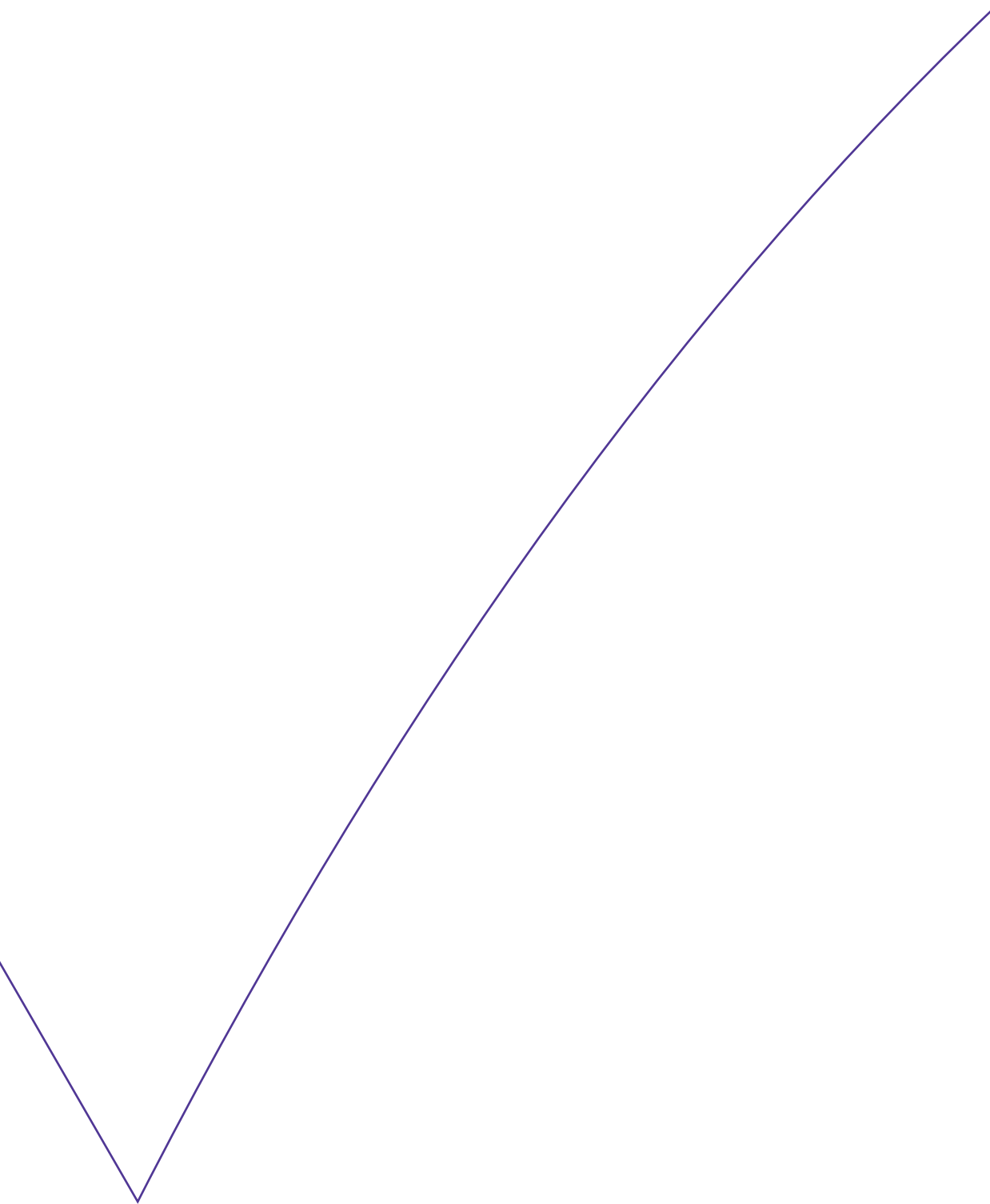
The use of G2B (Government to Business) APIs streamlines the whole process of businesses filing for returns. Furthermore, the use of APIs in G2B makes it easier for businesses to ensure they are following regulatory requirements and shows transparency to the regulatory bodies. These APIs automate many previously manual processes and boost confidence in the system. The use of APIs in G2B makes communication easier and promotes good risk management. APIs in G2B promotes a collaborative environment, enhances capabilities for both governments and businesses and reduces the margin of error.



Conclusion

The growth of Public APIs will shape the way in which business is conducted in a digital world, both today and tomorrow. Many people still see APIs as a technical interface to software applications. It would therefore be good to evolve them as a less technical tool, allowing to improve the value proposition of the future Public APIs. It would also allow a more commercial use around customer digitization, thus facilitating the conversion of online visitors to customers, by developing a Value Proposition Interface (VPI) linked to Public APIs.





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