Oracle Cloud in FinTech Industry

Rajalakshmi Thiruthuraipondi Natarajan

rajalan11@gmail.com

Abstract

In recent years, FinTech is one of the fastest growing industries in the market, with more and more startups coming-up each year. Using technology, these companies build tools and deliver financial services to its customers by connecting to the conventional banks on one side and special features on the other. The success of these organizations largely depends on its ability to quickly bring new services to the market by seamlessly connecting to the financial institutions without compromising on the security or compliance. Similarly, the banks need to leverage the services provided by these FinTech companies to provide better services to their customers. In this regard, Oracle Cloud is a one stop shop for , these FinTech companies and financial institutions to easily build and expose APIs that can be easily used by to provide services to the end customers. Not only does Oracle Cloud provide an APIU layer for easily building the end product, but also the infrastructure (IaaS), development tools (PaaS) and an ERP (SaaS) to both build the product and maintain the operations, not to mention the flexibility, better pricing along with GenAI capabilities that come with it.

Keywords: Oracle Cloud, FinTech, Financial Institutions APIs, Cloud API layer, PaaS, IaaS, Financial Services. Financial Tools

Introduction

The term FinTech, quite obviously, is a portmanteau of Financials and Technology. It refers to the industry that uses technology to provide financial services to its customers in form of online services or Apps or even a feature within an App. These services can range anywhere from simple informational messages to the most complex transactions. Depending upon the service provided, they can either connect to a conventional bank or be stand-alone, relying on the user to provide input details to provide the service. Since this type of industry is technology intensive, it is imperative that the companies use the most optimal technology to build and service their clients. With ever changing technology landscape, almost every organization has invested significant amount of time and money to research the best platform to build and their products and with banking having one of the strictest laws and audit, it is extremely important that every layer is secure and robust. Other factor is the time-to-market. In 2018, there were a little more than 5800 Fintech startups, and by 2023, the number grew to more than 11600, with the funding more than 75 billion dollars in 2022 and the number of customers using the services provided by the FinTech industries grew from 58% in 2020 to around 80% in 2023 [1]. Looking at these numbers, it is evident that this industry is here to stay and is only going to get bigger and competitive. In this environment, the companies, especially start-ups or growing organizations, cannot afford to spend time shopping around for solutions to cater their every need. This can heavily deter their product's chance of success and / or their operational capabilities. To address these concerns and anything else that might come-up, the right approach for these companies is to look for a reputed, scalable solution which satisfies most of their needs, if not all, so that the Fintech companies can confidently build and deliver their products without worrying about other overheads.

FinTech - Overview

For centuries, the traditional financial institutions have provided banking services to its customers from a brick-and-mortar location, where the customers walk in for various banking activities, such as deposit or withdraw money, loans, amount transfers, etc. With the advent of personal computers, then the internet and now smart phones, banks have transformed into distributed systems reaching every customer's doorstep and now at their fingertips. Though the term FinTech has been a buzz word in the recent years, it has been in the market for a long time in various capacities, such as the introduction of ATMs is a financial service by itself, which has been around for decades now. Initially, such services were developed and provided by the financial institutions themselves to benefit their clients, but gradually, the third-party players started providing niche services, which the banks procured to aid their investors and we are now at a stage where the number of such third part services out paces the financial institutions' services and the banks have realized the potential and the cost efficiency of such services and are scouring through the market to find the right tool to grow their business, thus creating a market for Fintech industry.

The key difference between financial institutions and the Fintech industry is that the financial institutions are the ones where all the actual activities happen, and they are the ones who hold and disburses the money. They are the ones who is actually responsible for the entire operation. On the contrary, FinTech industry do not hold any money nor provide any material returns. It simply acts as a in between service to streamline these transactions, which otherwise would mean a lot of hassle to both the customers and the banks. These services can be referential, like comparing insurance rates among multiple providers, or transactional (Zelle or Venmo), or payment (PayPal), etc. these services make it easy for the business and the client to easily transact money, since a lot of heavy lifting is done by these services provided by the FinTech companies. Also, by aiding peer-to-peer transactions, these institutions have revolutionized the cashless transactional activities and asset tracking since most of these services maintain transactional history and tracking. As a matter of fact, in recent times, most new banking clients perform most of their banking activities without ever stepping into a bank, thanks to the services provided by the FinTech companies.

To understand the working of a Fintech industry, we need to understand the structure of a financial transactions. In every transaction, there are at minimum three parties involved, the sender, a business or an individual who needs to initiate the transaction for procuring a product or a service, the receiver, the provider of the service or product that sender needs and the beneficiary of the transaction, and the financial institution where the transaction is made. Depending upon how the transaction is conducted, there can be several parties involved between the original sender and the final receiver, but in every subset, at these three parties will be involved. Also, even in a simple transaction, there are several components that enables and ensures that the transactions are successful, such as network, security, insurance, processing, etc., and FinTech companies can act as a go between any two parties in any phase to ease the transaction and depending on the complexity of the transaction, there can be several Fintech companies involved in a single transaction. The services of these fintech companies can be procured for a nominal fee, either paid by the bank or considered as part of the transaction fees. These fees could either be in the form of subscriptions or charged per transaction, which is either incorporated as part of the service charges in some cases the bank bears it.

It is important to note that, all financial and banking regulations that the banks and other financial institutions have to adhere by apply to these pin tech companies too. Any breach of these laws or compliance would result in serious penalties and legal actions. Hence it is extremely important that these fintech industries identify and choose the best base layer without any security compromises and least moving parts so that they can safely come on securely deliver their products.

Build Requirements of FinTech Industry

As mentioned earlier fintech and banks are two ends of the financial services that are provided to their clients. Though the lines have blurred in the recent years, predominantly most fintech companies would need banks or other financial institutions to deliver their services. Of course, there are some financial services that do not need bank or other financial institutions, most Fintech companies do need to connect to banks and other financial institutions in some form or the other to provide these services. Hence for this collaboration to be successful there are certain requirements from both the bank as well as the fintech companies for this to be successful. The platform that they choose to build and expose their APIs, and their products should satisfy these requirements and additionally provide more features that would provide an edge for these companies over their competitors to remain successful in their market. Following are some of the key requirements from both bank as well as the fintech industry perspectives -

From a bank standpoint, the key feature that is expected out of the development platform is the ability to easily build and expose their banking capabilities to the outside world. These are the APIs using which the fintech companies and other providers can leverage to build their products around it to provide financial services to them. It is also important that the bank is able to at receive the details back from these financial services into their own system for their own operational and research activities. The other key factor is that while all these are being done the security or the complaints laws are not impacted in any way. The bank should also have the control as to what is being exposed and to whom. Since the banks. Are liable for any financial. Mishaps or losses? They need to be extra careful what they choose and who they expose their information to, since any unintended leaks can lead to serious charges.

No come on from a fintech perspective come on these companies should be able to access APIs with ease and use it in their products. Additionally, the financial services exposed by these fintech companies should also be able to gather relevant information tracking and should be easily available for auditing and other regulatory purposes. They should also have the capability of effective error handling secure code deployment and extensibility. Scalability and extensibility are another key feature that are needed by the fintech companies as the business grew, they should be able to add or remove features from their products as required. On the other hand, they should also be able to expose these services to their customers another financial service providers with as minimal interruptions and hops as possible.

With the banking APIs available, the next need is the development tools for the fintech companies to build their own APIs and other features of products. These tools should have a wide range of options and capabilities so that the developers can build and maintain their code with ease and deployment capabilities. These tools should be simple and easy to use for the developers to marry the banking APIs with the financial services so that it can be effectively used by their end customers. This requirement is not limited just to the fintech companies but are needed by the banking institutions too so that they can expose they are back-end operations and data to a common marketplace where these fintech companies can leverage them for their products. In addition to ease of use the tools should also be compatible with the back-end systems, along with the deploy mental capabilities so that it can be easily versioned and deployed to production.

In addition to these requirements, it is also important that the infrastructure on which these services are exposed needs to be robust, scalable, easy maintain. Should The infrastructure be compatible with various products and services that are predominant in the market along with the capability of easily marrying other products which might be needed by the bank or its customers. These infrastructures should also be easily available, cost effective, compatible with the back-end operations of both the banks and the FinTech companies that the financial services are used.

Oracle Cloud in FinTech

Arguably, Oracle cloud is one of the best in the market with industry leading products and tools to service its clients. The Open Banking platform provided by Oracle is a comprehensive and rounded innovation stack that provisions both banks and the FinTech companies to build and expose their services.

The key part is the Oracle API Platform Cloud Service which aids with complete API lifecycle management from design, to build, to deploy and maintenance. They have a wide range of pre-defined APIs to assist in innovation and development. There are Banking APIs, that can be leveraged by the banks to connect to their back-end systems and expose their features and systems to the common pool that can be used by the Fintech companies to build features around it or to provide utility services to the open market that can be used by the public. Also, there are Fintech APIs, which are pre-built capabilities or features, such as authentication, payments, transfers, loaning, etc., that the Fintech companies can use to build their service APIs. The security and authentication APIs, such as, Blockchain APIs provide the developers with building security features in their solution. In addition to these APIs, it has several other APIs, such as ERP / SaaS APIs, used to seamlessly integrate the banking and FinTech solutions with Oracle Financials application of the company, CX APIs for integrating with sales and marketing, PaaS, and IaaS APIs for application development, etc. Using these features, banks and the Fintech companies can not only build and expose the service but can easily integrate with their operating applications for supporting their financial activities.

Oracle Digital Tools Layer provides the developers and innovators the ability to use the APIs to build the product. It covers a wide range of development needs such as service or production development, integration, security and authentication, mobile development, database build, etc. Using this PaaS, both banks and FinTech companies can effortlessly develop their solutions safely and deploy it to any systems. These tools come with a variety of build tools used to develop and configure the end solution. The drag and drop feature and coding assist helps the developers for easy and quick build.

Another feature is the Marketplace services, where anyone who wishes to develop ta new service using Oracle can come in and view all the Oracle APIs and Fintech solutions and the banking APIs that the banks have voluntarily made available to the public. As the name implies, this layer acts as a marketing for all the Fintech and banks have used Oracle’s services, where the outside customers or the FinTech companies within the cloud can look around and find the right fit that benefits their growth.

Oracle IaaS is the infrastructure service provided by Oracle for its customers where they can run their service and applications, not just their FinTech or banking related applications, but their entire operations. This service needs to introduction or justification as more and more organizations are moving from on-prem to cloud due to the various advantages in cost and effort it comes with. Oracle Cloud IaaS is one of the leading and fast-growing solution in the cloud market which can support pretty much any requirement that the customer might need.

While the services and products discussed do far are aimed at Fintech company’s output, they still would need applications to support their operations. Oracle ERP, wither on-prem or on cloud can be that solution. Oracle ERP has been in the market for around half a century and is considered as on of the best product there is, no matter what the domain or the need. The Fintech companies can use Oracle ERP for all their back-end operations. Using the Oracle SaaS ERP APIs, the financial solution developed by the fintech companies can easily plug into their operating applications for bookkeeping and reporting. The ERP solution that Oracle provides is not only limited to any financial related services, but for all needs ranging from procurement, invoicing, billing, and business needs.

Apart from these provisions, for any potential innovator, oracle provides an open banking digital sandbox, which any interested party can procure and work on their POC or research needs. This is a special provision that sets Oracle Cloud apart from most providers in the market. This sandbox comes with the complete stack of open banking layers, such as a complete API platform with both Banking and FinTech APIs, CX platform, , a complete set of open-source developer tools (PaaS), Cloud Infrastructure (IaaS) and a marketplace. Once the innovation and the development are complete, the solutions built using the sandbox can be seamlessly married to a production system that is identical to the sandbox using which the development was made.

Conclusion

Oracle, undoubtedly, is a reputed IT organizations in the world and its cloud solution is one of the best in the market. It has carried over the best features of its on-prem solutions and tools and adopting it into its cloud solution assisting their clients to safely and effectively build and deliver their products and services. Unlike most other competitors, Oracle Cloud caters to every need of the FinTech and banking industry or any other industry for that matter. The availability of cloud infrastructure for deploying the product, all required APIs for both banks and the FinTech companies and the necessary tools to build in a single platform is a boon for these companies as they need not worry about the API availabilities for their solution or compatibility or security and can focus on their solution. Also, the availability of ERP / SaaS solution for managing the companies' operations and the provisions to integrate seamlessly with other customers who are already within Oracle cloud makes it an ideal choice for both banks and the Fintech companies to provide services to their customers using Oracle Cloud. Though Fintech industries have a come a long way, considering the pace at which the technology is evolving, it is a must that they and the banks need to adopt and evolve along with it to remain relevant in the market and Oracle constant strive to incorporate the latest trends into their products means that the FinTech companies, the search can potentially stop here for their operational needs.

References

[1].Justin Trificana, What is fintech? 6 main types of fintech and how they work, https://plaid.com/resources/fintech/what-is-fintech/, Aug-2023
[2]. Financial Service Cloud Solution, https://www.oracle.com/cloud/financial-services-resources/
[3].Oracle Digital Innovation Platform for Open Banking & Fintech, https://www.youtube.com/watch?v=nr2rhmuOlNM
[4]. Oracle Banking APIs Cloud Service, https://www.oracle.com/financial-services/banking/banking-apis/
[5]. Oracle Financials Cloud, https://financemanagement.ucsb.edu/resources/oracle-financials-cloud
[6].What is Financial Technology (FinTech)? A Beginner's Guide, https://bootcamp.cvn.columbia.edu/blog/what-is-fintech/
[7].Explainer - What is "fintech" and how is it changing financial products?, https://www.centralbank.ie/consumer-hub/explainers/what-is-fintech-and-how-is-it-changing-financial-products#:~:text=The%20word%20%E2%80%9Cfintech%E2%80%9D%20is%20simply,anything%20that%20relates%20to%20finance.