

IBM Cloud for Financial Services: Bringing the Best of FinTech to the Cloud



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Website: <https://www.ibm.com/us-en/marketplace/cloud-for-financial-services>

Key dates: Founded in 1911

Clients: banks, financial market institutions, and insurance companies

Value proposition: cloud-based solutions

Senior management: [Rob Seidman](#), Offering Manager, Watson Financial Services

IBM Cloud for Financial Services is a platform launched by IBM in 2017. It's part of the multinational IT company founded in 1911. IBM is one of 30 companies included in the Dow Jones Industrial Average and is involved in a number of industries with a strong research and development presence across the globe.

With such a wealth of experience in the full life cycle of FinTech products, it was a pleasure to speak with Rob Seidman, offering manager, Watson Financial Services.

Rob Seidman started his career as a financial engineer at Algorithmics, a financial risk management company that was one of the first major FinTech firms, established over 30 years ago. The company was acquired by IBM in 2011, and Rob was present pre- and post-acquisition. After leaving IBM in 2013, Rob worked as a quantitative strategist at Quantifi and later as a senior presales consultant for S&P Capital IQ. In March 2016, Rob returned to IBM, where he currently serves as the offering manager for Watson Financial Services. His responsibilities are split 50-50 between development and sales, and Rob's experience developing and managing financial technology



products is being put to use at IBM to bring financial services solutions to the cloud.



IBM office, Toronto

The IBM Cloud for Financial Services

Rob explains how IBM developed the IBM Cloud for Financial Services to start a movement where financial institutions, whether they are involved in banking, wealth management, or insurance, could reimagine their workflows and business processes on a cloud-based platform. One of the main goals of the platform was to democratize access to financial services technologies, applications, APIs, data, and content.

Many of the core technologies on the IBM Cloud are APIs. Before the FinTech revolution, many services were gated behind multiple layers of implementation and compliance issues. Today, using the IBM Cloud, developers can deploy APIs with one click of the mouse, generate an API token, and start using the service.

“So we think of it like a sandbox. It’s this giant playground where you have all of these Lego bricks, to use the metaphor, that you can stick together any way you want, to build the financial technology application. This is the future.”

Starter kits

IBM provides a series of APIs, ready-to-use; however, the beauty of the platform is it gives developers the capabilities to build “new applications guided by financial services reference architectures, microservices patterns, and starter kits.” To get users started, IBM has open source projects available on GitHub (e.g., [Investment Insights for Asset Managers](#)).

The [starter kits](#) include the following:

- **Investment insights with Watson** – analyze and contextualize the effect of news and market events through natural language processing, graph database technology, and enterprise-grade risk management. This starter kit can show financial institutions how, for example, the price of oil can impact investments.
- **Asset exchange using IBM Blockchain** – use the latest distributed ledger technology, Hyperledger Fabric version 1.0, to analyze trade finance (e.g., the members in a trading network and who is accessing specific data) and visualize asset transfer in a blockchain network.
- **Build an investment management chatbot** – a popular trend in AI tech, chatbots allow users to do things like manager portfolios, request data automatically, and analyze securities on PC, mobile, and other interfaces.

“Starter kits are like a scaffolding, or a blueprint, if you will, of how you stitch this piece and that piece together and then put a UI over it. The underlying APIs are the proprietary capabilities. Each respective company, whether it’s us or one of our partners, maintains that capability.”

API marketplace

Connecting API endpoints creates new workflows and integrations not feasible a couple of years ago. The pace of FinTech disruption has been growing, mostly because millennials consume content in a different way. As a result, robo-advisors such as Robinhood and Betterment have become popular among the younger generation. With APIs, FinTech firms can interconnect, and IBM Cloud makes this incredibly easy and lucrative.

Rob explains that IBM strives to make each API charge-as-you-go, so teams developing the APIs are not constrained by the pricing model of any particular application.

“We can cater to the innovation teams, where innovation teams might be a special carve-out at a financial institution, or they might be just a few guys in a dorm room trying to find VC funding for their first round of their up-and-coming Fintech solution.”

What does the IBM Cloud for Financial Services include?

IBM partners with FinTech firms such as **Quovo**, **Payeezy**, **Plaid**, **Accern**, **RiskSpan**, and **Xignite**. Apart from these third-party APIs, Rob is focused on developing a set of IBM offerings that are compliant with regulations and cost-effective for clients. Running these services requires a lot of computing power, so Rob highlights the importance of launching them in the cloud. To date, the following services are available:

- [Managed Financial Data](#) – this service takes care of data formatting. It sits behind the scenes and makes sure data analysis is working properly. IBM uses only best-of-breed data sources
- [Simulated Instrument Analytics](#) – includes a number of financial models designed for IBM’s risk clientele, traders, and asset managers.
- **[Coming soon]** [Portfolio optimization](#) – a powerful portfolio optimization engine built on top of [IBM CPLEX](#), which is used in the finance industry to create model portfolios and find efficient frontiers to deliver said portfolios.

- **[Coming soon] [Predictive market scenarios](#)** – takes market data and creates what Rob calls “alternate states of the market.” This service uses inputs like macroeconomic data, interest rates, foreign exchange, equity, credit spreads, credit ratings, and other factors and analyzes the market impact of changes in one or more of these factors.

“To measure the impact, you look at the historical correlations. And, you’re not going to be 100% accurate, but you can say with some confidence interval certainty that when x happens, you might get y result.”

What IBM’s engineering teams and tech stack look like

According to Rob, IBM uses agile methodology with small teams instead of one big team. The first step of the development process is to develop a prototype. Once that’s done, another team takes over and builds out the product. Apart from that, a separate team is responsible for building open source use cases. Much of the technology is built using **Kubernetes** and **Docker** (Rob is a big fan of Docker).

The Financial Services Development Team consists of full-time team members with deep industry subject-matter expertise. Beyond that, there are teams and individuals working either tangentially or indirectly on the ecosystem and various integration points. Rob notes that the development life cycle is not as linear as it may seem; instead he says it tends to be circular.

“We’re often our own clients. For example, maybe a feature is requested by an internal team relying on the APIs, so it goes back to the developers and goes through the [development] cycle again. So by the time the client needs it, it’s been embedded; it’s been tested and tried and true.

IBM uses multiple programming languages such as **Python**, **Go**, **Java**, and **JavaScript**, depending on the use case.

WealthTech Club takeaways

IBM Cloud for Financial Services is an innovative ecosystem that caters to banks, financial market institutions, and insurance companies. This platform is slated to become a major player in the financial services sphere because of the scalability of the cloud tools, integration capabilities with APIs, and, obviously, IBM’s buying power. Rob and his team are digesting more and more data and extending the capabilities of the services every day to offer clients something more than just a linear feature set.



Written by Vasyl Soloshchuk, CEO and co-owner at [INSART](#), FinTech engineering company. Vasyl is also the author of [WealthTech Club](#), which conducts research into Fortune and Startup Robo-advisor and Wealth Management companies in terms of the technology ecosystem.