



Finastra pioneers next-generation fintech ecosystem, powered by Microsoft Azure

With offices in over 60 countries, 10,000 staff and revenue exceeding \$2 billion, Finastra is a significant Fintech force.

Already an established leader in financial software and cloud solutions, its first platform offering, FusionFabric.cloud, launched to public cloud in June 2018.

Azure-generated results:

- Accelerated innovation
- Flexible build environment
- Scalable infrastructure
- Reactive performance
- Hybrid connectivity
- API-ready
- End-to-end fintech solution

Industry:

Financial services

Country:

Global

Technology Environment:

- Microsoft Azure
- Azure Active Directory
- Azure API Management
- Azure Container Registry
- Azure Cosmos DB
- Azure Kubernetes Service (AKS)
- Azure Marketplace
- Hybrid Cloud
- Open Source

Connect with Finastra:

<https://www.finastra.com>

“Azure is a key differentiator for Finastra. Microsoft combines first-class technology with world-class brand recognition to create instant impact for our customers.”

Félix Grévy, Global Head of Product Management, Finastra

FusionFabric.cloud is Finastra’s ground-breaking Platform as a Service (PaaS) development ecosystem that is revolutionizing the future of banking. Banks, financial technology (fintech) providers, independent developers and Universities are leveraging its collaborative, open source environment to author innovative new applications for retail and corporate banking, payment processing, lending, treasury and capital markets. The result is banks and financial services institutions can quickly implement new product innovations on top of existing systems, in a secure environment, at significantly reduced operating costs.

Creating a development ecosystem

With fintech gaining momentum, Finastra seized the opportunity to champion collaboration and opened its core systems to third party development. Félix Grévy, Global Head of Product Management at FusionFabric.cloud explains, “Our goal was to create an ecosystem of development partners to deliver applications quickly and at low cost. At the same time, our customers would be able to leverage fintech innovation in our familiar and stable workflow environment.”

Fast and secure cloud native environment

Finastra’s early commitment to build in a cloud-native environment opened a host of API opportunities. Azure was the preferred cloud solution for four main reasons: its API management security features, its technical capabilities, its support of open source technologies and crucially, its inbuilt global regulatory and data residency compliance.

Azure Active Directory provides world-class authentication and security. This allows Finastra to manage users and single sign-on across all applications. Active Directory is widely used in banks, feeds into Federated Identity Management protocol and supports OAuth 2.0. “Our integration with Active Directory is highly attractive to our banking and financial clients,” confirms Grévy.

And the platform is *fast*. Azure provides the latest CPU processors to run its ‘financial model builder’ algorithmic calculations, and results show a ten-fold increase in speed for customers leveraging V100 GPUs to calculate a portfolio of 30 years swaps. It’s a win all round.

Open source solution

Leveraging open source technology was a key consideration when designing FusionFabric.cloud. As Grévy puts it, "We didn't want to reinvent the wheel. We wanted to rely on proven, industry-approved techniques and technologies." Finastra uses HTML5 for its user interface, Java & JavaScript in the backend and frontend development takes place in node.js. "We also use Helm Chart, Node-Red, Eclipse Che, Spring Boot, to name a few. The ease of integration we have experienced with Azure proves Microsoft has a genuine commitment to open source."

Hybrid connectivity

Azure utilizes comprehensive techniques to manage hybrid connectivity for the large volume of banking clients that still run data on-premise. Azure ExpressRoute provides a direct, secure link between banks and the cloud. This adds value to the FusionFabric.cloud platform, as Grévy explains, "Banks can run their core system on-premise, while still managing marketplace applications on the cloud. We are facilitating their controlled exposure to the cloud, and that's exciting."

Streamlined API management

Azure's API integration allows for an end-to-end solution between the banking environment, fintech partners and the platform. Extensive API analytic features give Finastra intricate insight into their platform portfolio: "For example," explains Grévy, "we are able to see which APIs are getting the most use, and which ones aren't. We use this information to understand current trends on a very granular level. We share findings with our API partners to help them maximize success and optimize their application delivery journey."

Working with such a large portfolio of partners and customers requires a complete delivery integration pipeline. This allows the team to publish, upgrade, maintain and deploy APIs in a continuous fashion. As the team dives deeper into Infrastructure as Code (IaC), Cosmos DB stores configuration information to support optimal build environments. Releases are smoother and less prone to errors with Virtual Studio Team Services (VSTS) where the team also collaborates on code and experiments with A/B split testing. "Our platform intersects a great deal of data and technology," says Grévy, "yet our complete integration with Azure streamlines our infrastructure, simplifies our processes and makes our lives infinitely easier."

Embracing Azure Kubernetes Service

Kubernetes is at the heart of the FusionFabric.cloud platform, allowing the orchestration of Docker containers. Fintech applications can run and scale with ease on Azure Kubernetes Service (AKS), the next-generation service that builds on the Azure Container Service Engine (ASC). Currently on an ASC-engine, Finastra plans to migrate to AKS. AKS brings a fundamental benefit to the development team at Finastra, as Grévy explains, "AKS gives us a pure Kubernetes and Docker imaging environment that we don't have to manage ourselves. Our team has regained the resources to accelerate deployment and maximize our PaaS offering."

The team uses Azure Container Registry (ACR) to simplify container development, while geo-replication helps run disaster recovery procedures for different locations. The ACR can also audit whether data residency is running in the same jurisdiction as the banks. Inbuilt application auto scaling allows the team to manage cost burden and react quickly to meet spiked demands of partners and customers.

The future of finance is open

"We are built for innovation," enthuses Grévy. "What we are doing in partnership with Microsoft Azure is completely unique in our industry. We've made a significant step forward in the fintech innovation space and our team is energized and inspired to discover what's next."

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