As a financial data vendor, Foreks knew that it was mission critical to their business to share financial data with their fintech customers in a fast, uninterrupted way. With Fixel's deep knowledge and experience of AWS, they helped Foreks to drastically improve website performance, for a better, faster and more secure website experience for their global customers.

Foreks' challenge

Foreks needed a secure and resilient website with high-speed performance to ensure an enhanced customer experience. They knew that Fixel had vast experience of AWS, so they put their trust in Fixel's knowledge and skills to guide them to the right solution for their needs.

Fixel set about developing a new and improved version of Forek's website application. While developing the web application, the team was mindful about how to manage high request counts, the caching mechanism for static content and delivering content in a seamless experience to all Forek's customers worldwide.

The solution

The first step was to leverage Amazon CloudFront, a high-speed CDN (Content Delivery Network) service to enhance the overall efficiency of Foreks' website, as well as improving latency, speeding up response times and optimising caching.

From a security perspective, CloudFront adds an extra security layer to Forek's website, which can be scaled and distributed worldwide to edge locations, providing a highly available network powered by a private AWS backbone. Other AWS services that contributed to improved website speed include Amazon Elastic Container Service (Amazon ECS), a container orchestration service that makes it easy to deploy, manage and scale containers running applications. Amazon Simple Storage Service (Amazon S3) was also deployed, which is an object storage service to manage static content in a reliable and secure way.

About the customer, Foreks

Foreks was established in 1990 as a joint Swiss-Turkish entity, specialising in broadcasting of financial data to fintechs including banks, brokerage houses, foreign exchange bureaus, Internet service providers, corporations and private investors. End user customers manage their investments and follow real-time market data from desktop and mobile devices.

devops@foreks.com

Leveraging AWS for a faster, better financial experience

Thanks to the high-speed CDN service of AWS CloudFront, Foreks' website speed has increased three-fold, dramatically improving latency and response times. After migration, website hits have increased by approximately 40% on a daily basis. In early 2022, economic news was published stating that Foreks' website handled concurrent 100k individual users without any downtime or issues.

The caching mechanism (the amount of data transferred to the internet) has decreased considerably, leading to a cost reduction and faster content delivery. Foreks' content caching has now reached 95.5%, when before it was nearly 50% using traditional caching tools that caused operational load and inefficient website performance.

By combining CloudFront with Amazon ECS, the website is containerised with auto scaling capabilities, therefore using zero virtual machines (like a traditional static data centre VMS). This leads to huge engineering and operational cost reduction; the ops team no longer have to deploy static VMS because Amazon ECS automatically scales when the website data traffic increases.

"With the flexibility of AWS and functionality of the CDN service, Foreks can offer a better financial experience to our global end users. Our hardware and operational IT costs have also greatly reduced. Now our teams can focus more on product development, rather than struggling with operational resources and overheads."

Abidin Sunar, CTO, Fixel

Multiple benefits of working with AWS

Within this project, Foreks deployed a completely renewed version of their website (www.foreks.com) to AWS. The acceleration between Amazon CloudFront, ECS and S3 powered the website in terms of reliability and scalability. The static front-end instances have completely disappeared since the containers have been powered by Amazon ECS with its auto scale capability.

Thanks to built-in caching mechanism provided by Amazon CloudFront, the amount of data transfer has also reduced significantly, and by combining CDN, ECS and S3, the overall cost of the solution has reduced by almost 25%.

"Being an AWS Advanced Partner with 30 years' experience is hugely advantageous. TD SYNNEX help us a lot - not only on our upgrade journey - but also allowing us to participate in AWS programmes that take our business to the next level."

Abidin Sunar

CTO, Fixel

TD SYNNEXsupport

TD SYNNEX had a significant role to play in upgrading Fixel to the advanced AWS tier, whilst also offering Fixel special discounts from AWS accelerated projects and optimising the overall cost of AWS accounts by aggregating reservations and discounts.

Fixel also uses Tech Data for AWS training and certification, enabling them to successfully achieve the Advanced AWS Partner level.

About Fixel

Fixel is a technology company based in Istanbul, specialising in digital transformation and DevOps solutions. Fixel's goal is to revolutionise customers' businesses with new technologies that prioritise the customer experience. They design and implement technical solutions for applications, leveraging AWS, and using technologies such as microservices, container orchestration, application modernisation, monitoring, security best practices, and improving web application performance and functionality.

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