

AppCentrica Develops Custom Order Management System Powered by AWS



Executive Summary

Fleets Coffee envisioned an innovative solution to disrupt Toronto’s food and beverage market. Using a fleet of food trucks, Fleets was able to minimize wait times and ensure high quality food and beverage reached their customers regardless of location. Fleets engaged AppCentrica to serve as their IT team, lead designer, and developer for their customer order management system. Leveraging Amazon Web Services, AppCentrica enabled Fleets Coffee to launch their business and rapidly realize a new revenue stream.

Customer Challenge

Incepted in 2019, Fleets Coffee is a food and beverage company which formed with the vision of changing the way that consumers engage with their local coffee shop. Based in Toronto, the Fleets Coffee team sought to develop a business model centered around two core tenets: minimizing wait times and ensuring food and beverages are always delivered fresh.

To achieve these two goals, Fleets purchased a series of food trucks with the intention of outfitting them to be able to produce high quality food and beverages at any location and while on the move. Additionally, they started planning the development of a purpose-built order management system which would allow customers to place orders to the appropriate truck, and then have them intelligently routed into a queue and subsequently prepared at an optimal time based on their proximity to the pick-up location.

AppCentrica Approach

With their business ambitions clearly defined, the Fleets team engaged AppCentrica to serve as both their IT team and the lead designer and developer for their custom order management system.

The project was broken into a series of different phases. First, AppCentrica worked to build out the business architecture for the order management system, gathering requirements and building design components. Next, AppCentrica leveraged Amazon Web Services to provision infrastructure and start development of the solution. This phase of the project involved heavy custom development and leveraged auxiliary software components to enable the geolocation tracking functionality the Fleets team required to realize their vision.

Additionally, throughout the engagement, AppCentrica worked with the Fleets team to plan the configuration of the trucks themselves and ran simulations to mimic order placement and rapid order influx situations.

FLEETS —COFFEE—

About Fleets Coffee

Launched in 2020, Fleets Coffee is a Toronto-based mobile coffee and technology company committed to delivering high quality coffee shop products to commuters, students and workers. Their proprietary ordering platform is designed to free the consumer from long wait times and ensure orders are always made fresh.

Customer Quote

“AppCentrica's professional approach helped keep us focused and on track during the frenetic entrepreneurial moments. Project management updates were excellent, issues were addressed in a prompt and assertive manner and meetings were effective and optimum duration. I can't see how any team could have done the job faster or better.”

— CTO, Fleets Coffee

AppCentrica Solution

In order to support Fleets' ambitious business goals, AppCentrica recognized that no off the shelf solution could serve their needs. AWS cloud resources were used to ensure the customer and business needs were served with high scalability and availability, while maintaining security and cost-efficiency.

AppCentrica leveraged their knowledge and expertise of AWS offerings, selecting DynamoDB to serve as the platform database. APIs were created using Amazon API Gateway, AWS WAF, and Lambda functions. Cognito was utilized to support security involving user and identity management. S3 and CloudFront were used for static content, while S3, Kinesis Firehose, and Athena were used for historical data storage and reporting. SQS, CloudWatch, and Lambda were used to integrate between existing platforms and new systems. Additional services including AWS Step Functions, Amazon Pinpoint, Amazon SES, AWS Secrets Manager, and AWS X-Ray were employed to support effective and secure operation of the newly developed system.

Results & Benefits

Since the completion of the project, Fleets Coffee has been able to successfully launch their business and start realizing a revenue stream.

The purpose-built order management system designed and developed by AppCentrica has enabled Fleets to provide a truly unique coffee shop experience. Their customers can now utilize the application ahead of time to place and pay for an order and then based on their distance relative to the pick-up location, the order is prepared and made ready for the customer just prior to their arrival. In this way, Fleets has made good on their vision, and minimized unnecessary wait times all while providing a wide assortment of fresh food and beverage items.

Although launching a food and beverage business during a global pandemic is evidently not without its challenges, Fleets' unique business model has proved advantageous. Despite that the number of commuters has significantly diminished at present, their mobile cafés offer increased flexibility and have enabled Fleets to pivot and provide nourishment to industries that remain in full swing. Currently, in addition to normal operations at various transport hubs, they are travelling to serve construction crews and other front-line essential workers.

AppCentrica continues to work closely with the Fleets Coffee team as their dedicated IT partner.

About AppCentrica

We're an elite team of developers, designers, analysts, and architects, focused on delivering best-in-class solutions and building long-term partnerships with our customers. Our core capabilities include: Design & Architecture, Enterprise Cloud Transformation, Enterprise Application Development, Integration, AI/Data & Analytics.

