mindfire

Overview:

The project involved developing an application to establish effective tracking for a well-known player in the business of renting and leasing out kegs. At the moment, our Client uses its proprietary, cloud-based solution to run its business. Its customers can order kegs via call/customer portal with details like SKU, no. of kegs, delivery date, etc. Post this, the kegs are dispatched and customers get charged based on the keg usage duration. The kegs can also be shipped to wholesalers for distribution and to bars/venues. The client also provides collection services to collect its own kegs from the pickup locations. Additionally, its customers can also lease kegs for a certain period of time with standard lease or with custom branding.

But it was not as simple to begin with. As the volume of business picked up for our client, efficient tracking of kegs became a challenge whose proportions kept pace. So the client desired to have a solution that could enable them to track easily, every keg in their supply chain. After analyzing their need in detail, the team@Mindfire offered to develop a comprehensive solution to the problem. It comprised of a tracking portal that in turn was powered by locational data provided by beacons tagged to kegs, and cloud-based capabilities to deliver the desired results.

Client details:

Name: Confidential | **Type:** Transportation and Logistics| **Location:** AU, NZ, UK, EU, US, HK

Technologies:

PHP, Symfony, MySQL, Kotlin (Android), Swift(iOS), Bash, Jenkins, Docker, Git, Memcached, ReactJS, Typescript, REST APIs, Microservices, TDD, BDD, DDD, Ansible, AWS – (CloudFront, Route 53, CloudWatch, CloudFormation, S3, EC2, ECR, ECS, RDS, SQS, SNS, Amplify, DMS, Lambda, Redshift)

Project Description:

The client has a global online presence in major countries and cities. Offering favorable, timely logistical handling capabilities are important factors the company focuses on. Some salient features of the project:

Customer Portal:

The customer can place and track orders from the portal with the order details. They can also use it for tracking their kegs, viewing monthly statements and other business reports.

Operations Portal:

The internal team used this portal to view orders, keg movements, assign warehouses for customer orders, add new/update existing customers, locations, kegs and other data required by the system to run business.

Mobile Apps:

There are Android and iOS apps for the business that are used by all the people throughout the supply chain to scan the kegs and dispatch them from one to another location.

Tracking Microservice:

This Microservice processes the pings coming from the devices and translates them into the keg movements. It also sends the movement details to other Microservices to translate them into dispatches for further use like billing, asset movement path tracing etc.

The third party cloud receives pings from trackers and sends location and telemetry pings to the servers.

Billing Microservice:

This Microservice handles the billing operations like generating charges, invoices etc. and sends this data to other Microservices to carry out further operations in the system.

API Microservice:

This is the service hosting RESTful APIs consumed by clients to perform the operations required by users directly on a regular basis. It also communicates with other Microservices in the system to delegate the tasks and retrieves billing and tracking data to show to the customers.

Architecture: