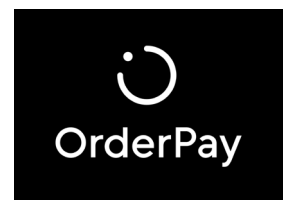# OrderPay is built and launched using cutting-edge cloud infrastructure from Bytes AWS

Company profile

Industry: Technology   HQ: London

Overview

Checkfer create cutting-edge order and pay solutions for the hospitality industry. By leveraging the power of under-table beacons, CMS and mobile apps, their products offer a faster way for customers to order and pay in restaurants, bars and pubs.

In 2020, Checkfer launched OrderPay, a mobile app that consolidates multiple brands and negates the need to download apps for different venues. OrderPay has since been adopted by over 6500 restaurants, including major brands such as Pizza Express, Wasabi and Côte. It saw significant adoption during the coronavirus pandemic, when social distancing measures were enforced at hospitality venues.

Challenge

Checkfer wanted to expand on their original 'white label' mobile app and offer modules that could work alongside a restaurant's existing app – this is when OrderPay was born.

OrderPay was built to provide an overlay app interface, enabling users to walk into participating venues and have the corresponding white label product interface open upon entry. However, the white label service was hosted on two standalone servers (app and database) running on an inflexible and risky cloud platform, which left components and data open to security breaches.

"

This was a critical project for Checkfer. We needed a team that could react quickly and be available to ensure the platform was architected to the highest standards and managed following strict ISO 27001 guidelines. We found working with Bytes and the AWS tooling was critical in the success of delivering a best of breed service to our hospitality customers.

Shaun Mook | CTO at Checkfer

With uptake for both the white label app and OrderPay expected to be strong, it was essential to have cloud infrastructure architected for performance and scalability. Checkfer wanted to leverage the power of a modern cloud platform like AWS to deploy the apps securely and within appropriate governance frameworks.

Solution

Bytes' AWS team discussed how to create, operate and govern a new multi-account cloud environment using AWS. They held workshops to examine Checkfer's current infrastructure and business requirements, before performing a high-level analysis of environment options. Following this exercise, Bytes AWS created a detailed statement of work for design, implementation and 24/7 managed services support.

Bytes AWS then started building the solution and implemented the following:

- **Well-Architected DevOps processes** for pushing resilient and repeatable code updates.
- **Landing zones** designed using AWS monitoring and governance tools and the orchestration capabilities of Control Tower.
- **Elastic Kubernetes** to serve the containerised services that make up OrderPay. It will also help cope when scaling and minimise cost – but boost capacity when needed.

As an extra layer of security, Bytes AWS employed Armor Intrusion Detection. This protects EC2 instances hosting Kubernetes and SSH entry points from brute force attacks. AWS Aurora was also deployed in a multi AZ arrangement, providing resilience in the event of backend database contention, and using shared storage for quick cutovers and failing back. This was all rounded off with a 24/7 managed service to ensure platform availability and support around the clock.

Benefits

The cloud infrastructure architected by Bytes AWS enabled flexibility for resources serving OrderPay. Kubernetes handled the microservice management and EC2 autoscaling managed the resource allocation based on demands, whilst Aurora boosted the strength of the backend database. The combination of all these tools in one place with one team made the project a success. Checkfer gained a modern, agile and scalable environment in which to build and launch OrderPay – one of the most relevant and exciting technology solutions of 2020.

> **"**
>
> 2020 has been a challenging year and the need to be flexible, agile and resilient is so important. Our customers expect Checkfer to provide the most cutting-edge services which allow them to trade safely and efficiently. With the support of Bytes AWS, Checkfer have achieved that.
>
> **Shaun Mook | CTO at Checkfer**