

# Automation Logic

## Waitrose eComms Transformation Platform



### Executive Summary

Waitrose were aiming to change the user-interface of their website and modernise the design and user experience to enhance the customer journey. Automation Logic (AL) were engaged at Waitrose to deliver a new project within their eCommerce business unit. The project is focused on migrating their e-commerce platform from IBM to a new micro-service platform on AWS, moving to a serverless infrastructure. The project sought to reduce web-related costs and speed up the time it takes for customers to make a purchase online.

### Customer Challenge

To deliver a new, fit-for-purpose eCommerce platform, Waitrose had two key challenges to overcome:

- Decommission IBM WebSphere Commerce (WCS).
- Enable a clear path for the development team to Production to release updates to the application infrastructure.

Their primary goals were to:

- Decrease technology overheads, whilst increasing revenue and continuously delighting clients with a seamless product to market journey.
- Migrate off-premise, in order to decrease down-time and costs.

### Partner Solution

AL worked with the Waitrose team to deliver a CI/CD platform, utilising Bitbucket, Jenkins, Nexus, Sonar and AWS/GCP. AL worked closely with development teams to enable them to perform more frequent, smaller releases. This involved build-engineering of automated processes to transform source code into deliverable products using Jenkins components (pipeline consisting of checkout, build, source code analysis, deploy to relevant environment) and test-automation with Selenium Grid to integrate with AWS to allow for resources to dynamically auto-scale depending on test load.

The Integration Platform (IP) platform is architected to use Amazon Web Services (AWS).

The key AWS services used are:

API Gateway

Elastic Beanstalk - used for WCSGateway, the iP interface to Weblogic Commerce Server (WCS). WCSGateway is implemented as a SpringBoot web application.

Lambda - for implementing micro service logic such as adding an item to a trolley.

Simple Queue Service (SQS) - for async communication when the client wants to "fire & forget" a call to a backend.

Simple Notification Service (SNS) - for notification to multiple consumers.

### About Waitrose



**Waitrose & Partners is part of employee-owned John Lewis & Partners.**

**Waitrose is a leading UK supermarket with over 300 stores and is in the top 10 of grocery providers in the UK.**

**They are continually looking to embrace new technologies that will shape the shopping experience of the future and enable them to deliver quality customer service.**

DynamoDB - used to hold static data from feeds (e.g. pricing information) and some user data (e.g. order/trolley info).

DAX - caching service for DynamoDB.

ElastiCache - backed by Redis, used to cache data from DynamoDB.

S3 - for object storage e.g., used by ETL pipelines to store backend feed data

Elasticsearch / Kibana - used to monitor logs and determine the health of AWS resources, in conjunction with CloudWatch and CloudTrail.

### **Results and Benefits**

The website went live with 100% of the customer, with the delivery and collection pages having been migrated over to AWS.

The system needed to handle a vast number of visitors without slowing down. Adopting cloud means Waitrose are now only scaling up or down depending on site traffic, whereas before their system had to provide for the maximum number of visitors at all times. This will result in huge cost and productivity savings as well as generating increased revenue and improved customer service. Since the new system went live, each customer is spending around £1.22 more on every online purchase because of improved user-experience.

### **About Automation Logic**

Automation Logic is proud to be an Advanced AWS Consulting Partner and part of the AWS Public Sector Programme.

We hold over 50 AWS certifications. Our team of expert consulting engineers embody our common mission, to share with our clients everything we know about DevOps and build them the new kind of teams and infrastructure they need to thrive in the digital economy.

