

## CASE STUDY

# Moment Builds the Foundation

## DigitalOcean to AWS Migration and Application Modernization



### The Customer

Moment operates as a global marketplace for creatives. The company exists to inspire the creative in everyone by offering products on their eCommerce site, enabling creatives around the globe to obtain the right gear, learn new skills, take epic trips, and make new friends along the way.

### The Challenge

Moment experienced annual traffic spikes on their eCommerce site, [shopmoment.com](http://shopmoment.com), on Black Friday, Cyber Monday and other holiday rush seasons. They initially launched their site on DigitalOcean, but soon realized the platform struggled to support their web application and keep pace with demand. Their pain points with the platform included: inflexibility, fragile infrastructure, limited auto-scaling and the database and web app running on the same instance. All of these pain points combined to cause significant disruptions to sales during high traffic periods. In addition, each deployment to production took down their entire site and they did not have a quick rollback mechanism.

Ultimately, the limitations of their legacy platform caused a poor customer experience for their website visitors. Moment knew that in order to keep up with demand and keep platform costs low, they needed to migrate their eCommerce application from DigitalOcean to AWS, all without disrupting day-to-day visitor traffic and sales.

### Our Solution

Caylent recommended modernization to enhance scalability and automated deployments in addition to migrating from DigitalOcean to AWS. Caylent engaged with Moment to move them from single VMs at DigitalOcean to containerized microservices hosted in Amazon EKS, behind load balancers with DevOps workflows and well-architected security and networking best practices. Moment's databases were rehosted from DigitalOcean to Amazon Aurora.

To deploy the landing zone for the migration, Caylent developed IaC templates to set up a multi-account environment, then configured CI/CD pipelines which use Github as their version control system (VCS) and CircleCI to deploy code first to a QA/staging account, then to a production account. Caylent worked with Moment in a series of workshops to analyze the monolithic application as deployed on Digital Ocean to see how it could be decomposed into microservices and containerized.

Application container images are now stored in ECR, which is where the application deployment pipeline build process retrieves them from. EKS is used to orchestrate app function and scale. CloudWatch metrics are used to collect some system/infra level metrics. Prometheus and Grafana are also used for system metrics. Customer connections to the app now ingress directly to the AWS prod environment through Elastic Load Balancer. Application containers running in EKS communicate with RDS on the backend for database communication. Thorough app testing was conducted in the staging account leading up to the cutover. Cutover to AWS environment took less than 2-hours to complete.

### Results and Benefits

Moment not only experienced more satisfied customers, but saved \$1M by avoiding site downtime.

### About Caylent

**Caylent is a cloud native services company that helps organizations bring the best out of their people and technology using AWS.**

Caylent's core practice areas include Cloud Migration & Modernization, Cloud Security, Cloud Native Application Development and Cloud Managed Services. We deliver through an agile, iterative approach which can be administered through a scoped project or as an elastic capacity subscription model based upon the best fit for your needs.

### AWS Services Used

- Certificate Manager
- CloudTrail
- CloudWatch
- DynamoDB
- Elastic Compute Cloud
- Elastic Container Registry Public
- EC2 Container Service
- Elastic Kubernetes Service
- ElastiCache
- Elastic Load Balancing
- IAM
- Key Management Service
- Lambda
- RDS
- Aurora
- Route 53 Resolver
- S3
- Savings Plan
- Support
- SNS