



Building For Resiliency

SUMMARY

Our entertainment industry customer offers a digital product sold online to a wide geographic region. Seasonal spikes in demand result in a majority of annual sales occurring in just a few periods of time each year. Due to the high concentration of sales volume in a specific period of time, it is critical that these order transaction systems are responsive and available, even during these spikes. Any downtime during these seasonal spikes would represent substantial business lost for our customer.

CHALLENGE

A typical e-commerce three nines availability was not sufficient for seasonal and spiky order volume. Our customer's main concern was avoiding any downtime during these peak load times. They challenged Source Allies to re-architect an order placement subsystem that would be always on during these peaks.

SOLUTION

After removing application server-managed state, we rearchitected to a multi-region active-active configuration using multi-region master-master AWS Aurora & regional ALBs + DynamoDB global tables and regional API endpoints. Intent on proving the new solution worked as planned, we used CloudFormation to quickly stand-up detailed app monitoring and alerting using CloudWatch & SNS.

BENEFITS

Multi-Region Active-Active Architecture

DynamoDB global tables made short work of historically labor intensive replication efforts.

Low Effort Application Health Dashboards

Cloudwatch Dashboards via CloudFormation are simple to assemble with pre-exposed metrics.

Regional Failover With Nothing But Route53

With region-confined inter-service traffic, get regional failover using health checks & routing policies.