



YOUAR Migrates from Heroku to AWS, Improving Scalability, Observability, and Deployment Speed



Industry: Software & Internet
Tags: AWS, Migration, DevOps

Challenge: YOUAR wanted to migrate and modernize its application workloads from Heroku to AWS while implementing the latest cloud best practices.

Solution: ClearScale helped YOUAR migrate to AWS App Runner, take advantage of infrastructure automation, and set up infrastructure monitoring.

Benefits: Now on AWS, YOUAR has the cloud architecture and capabilities it needs to enhance its cloud AR platform and services for users all over the world.

AWS Services: Amazon CloudWatch, AWS App Runner, and Amazon Aurora.

Executive Summary

Founded in 2014, [YOUAR](#) is an Oregon-based company that empowers developers to build persistent AR experiences through a purpose-built software development kit (SDR). This SDK makes it easy for developers to collaborate and engage via a shared AR cloud platform that can deliver rich AR views and interactions at scale to end users. YOUAR's guiding vision is to make AR accessible to everyone, everywhere, regardless of the specific smart devices they use.

YOUAR recently engaged ClearScale to help execute a migration from Heroku to AWS in anticipation of needing to meet higher future demand. ClearScale was tasked with designing and deploying an AWS Landing Zone according to the latest best practices, as well as executing the application migration.

"After many years on Heroku, it was time to upgrade our cloud architecture. ClearScale helped us get to AWS with minimal disruption and put us in a position to elevate our AR cloud platform."

George Blikas, CTO, YOUAR

The Challenge

Before migrating to AWS, YOUAR relied on Heroku's Platform-as-a-Service offering. While this worked early on, the organization recognized it needed a more robust cloud service provider for scaling and evolving the platform going forward. In the short term, YouAR wanted to develop its own IdP and modernize its application on AWS.

However, the company needed guidance from an AWS expert on the best way to accomplish these goals. As an AWS Premier Tier Services Partner with 12 competencies and 1,000+ successful cloud projects to date, ClearScale was the perfect partner. Since 2011, ClearScale has helped countless organizations migrate to the cloud and make critical improvements to maximize value.

The ClearScale Solution

The first step in the project was to determine the right underlying architecture for YOUAR's workloads. Historically, AWS recommended migrating Heroku workloads to Amazon Elastic Beanstalk. Today, AWS suggests using [AWS App Runner](#) instead.

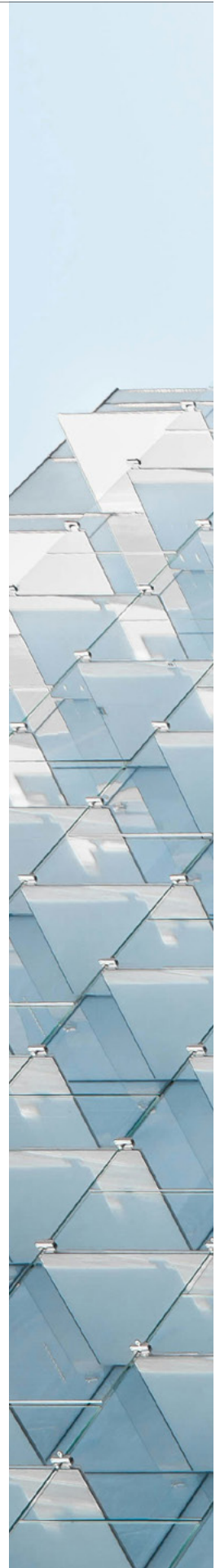
App Runner abstracts away many of the architectural choices that engineers have to make on the cloud to enable things like load balancing, encryption, and auto-scalability. Where App Runner distinguishes itself from Elastic Beanstalk is that the service is container-based, which was ideal for YOUAR's already containerized application.

AWS App Runner also links seamlessly to GitHub and allows for automatic deployment of new containers. The service monitors the [Amazon Elastic Container Registry \(ECR\)](#) repository and can deploy new containers whenever they become available. These integrations eliminated much of what the YOUAR development team would have to do manually when pushing out new features and releases.

To set YOUAR up with infrastructure automation, ClearScale created Terraform templates that the client can use going forward for its landing zones and architecture. With Terraform, YOUAR doesn't have to rebuild its cloud tech stack for dev, prod, and staging environments every time the organization wants to make an update.

On the monitoring side, ClearScale set up logging and observability through [Amazon CloudWatch](#). CloudWatch is the best way to keep up with what is happening across AWS resources, especially with infrastructure automation in place and ongoing application development work.

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The ClearScale Solution (Continued)

Furthermore, ClearScale migrated YOUAR from PostgreSQL to Aurora PostgreSQL, AWS' relational database solution. For authorizing platform users, ClearScale implemented Lambda authorization code between Auth0 and Amazon API Gateway.

Finally, ClearScale used AWS Control Tower to create a Landing Zone for YOUAR that follows currently accepted best practices. AWS Control Tower provides one place for team leaders to manage who has control over AWS workloads. As YOUAR's cloud environment becomes more complicated, AWS Control Tower will be an invaluable tool.

The Benefits

Today, YOUAR has an automated end-to-end pipeline on AWS for deploying code into various environments, testing new applications, and deploying them into production. The team also has better visibility into performance and a foundation for further innovation. Clients in other regions have also seen improved speeds as a result of the migration.

In the future, ClearScale and YOUAR could partner on a variety of projects related to Service Code, customer subscriptions, secrets management, Unity, and testing. Each of these areas poses additional opportunities for YOUAR to take its cloud AR platform to the next level for developers worldwide.

About ClearScale

ClearScale is a cloud-native systems integration, strategic consulting, and application development company founded in 2011. The company has successfully delivered more than 1,000 innovative cloud projects for clients ranging from startups to large enterprises across all major industries. ClearScale's cloud experts design, implement, optimize, and manage customized cloud solutions that help customers achieve their business transformation initiatives.