

VERO Migrates to AWS Cloud to Support the Rapid Growth of Their Innovative Social Media Platform



Executive Summary

VERO provides an advertisement-free social platform for the consumer market. It is a social network for anyone who loves anything enough to share it (movies, TV, music, books, places, photos, links) and wants control over who they share it with. VERO has the capabilities of integrating with some of the services from the world's largest companies like Apple, where it automatically detects what Apple music the consumer is listening to, and lets the VERO user share with his or her followers without them leaving the app. They've also partnered with British GQ where their content will be shared for free and without ad interruptions, algorithms, or bots. Because of their unique "relationship-first" social network approach, VERO is becoming the hottest social network in the world exceeding a million users in three years. It's putting control into the hands of the consumer and not the company who built the platform.

"ClearScale has been a great solid assist with their Amazon scale and infrastructure insights. Professional and timely help!"

TJ MARBOIS, CTO

The Challenge

VERO's infrastructure was hosted in a [Rackspace](#) data center in London, and they've seen an explosive user adoption rate beyond their expectations. After facing some capacity and scalability issues with Rackspace, VERO decided to explore external options. This migration was critical for the customer because their marketing efforts and paid subscription model had to be delayed until they were confident that the application was deployed on a massively scalable platform. Through their VC relationships, AWS led these conversations and uncovered mission-critical objectives tied to untenable growth under the current environment.

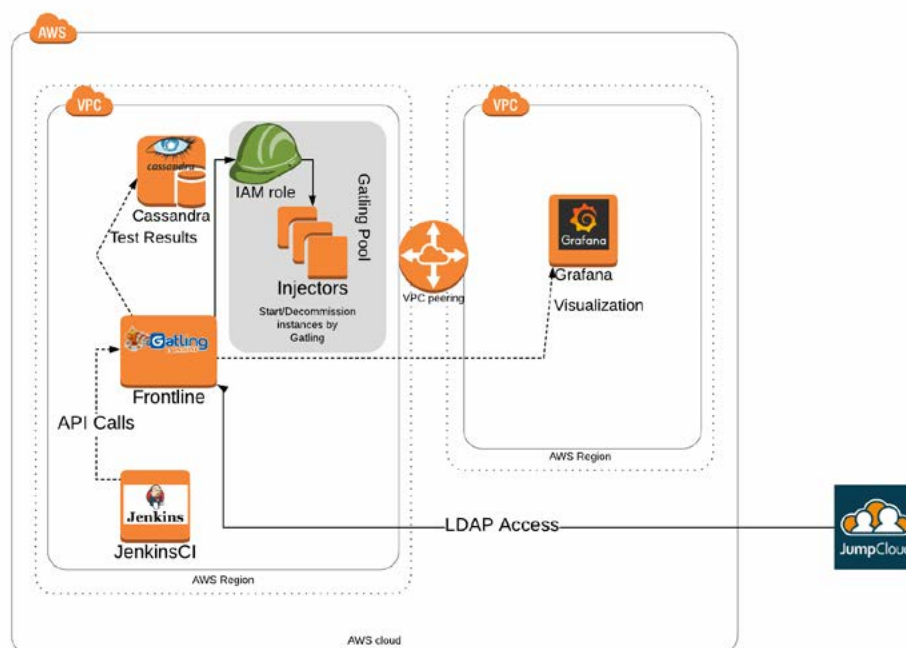
VERO asked ClearScale, an AWS Premier Consulting Partner, for a proposal to help [migrate their social media platform to AWS](#) based on best practices. They wanted to refactor their architecture for the cloud, help with automation deployment, and create a way to simulate unexpected viral spikes on the environment. The customer also wanted to ensure their users' data is as secure as possible and best practices were followed around security.

The ClearScale Solution

ClearScale began the project with analysis of VERO's current on-site Rackspace architecture and their drafts for AWS automation deployment. Following the audit, the new cloud-centric architecture design was created as well as a role-based access SSO system to manage multiple AWS accounts properly. ClearScale worked on reviewing and refactoring Terraform orchestration development and scripts implementation for the automation tier in order to be fully compliant with Infrastructure-as-Code (IaC) approach. During the migration many of components were moved, including VERO's CI/CD pipelines, caching and search tiers, data processing tier and the application tier. High availability (HA) and AWS-native load balancing were introduced along the way, where possible. As a final step, they designed and implemented logging and monitoring systems for the whole stack. ClearScale performed the load testing to ensure the new environment could handle the expected load and helped VERO with the final cut-over from Rackspace to AWS.

Automated Load Testing

The customer not only wanted to be able to scale freely, but be ready for possible future spikes. For VERO, it's not the usual Christmas or Black Friday type of spikes — which are predictable — but viral popularity spikes which are almost impossible to anticipate. VERO has already experienced a few of those before, where sudden content posted by their users led to a viral wave of popularity, increasing the load on their platform by a huge magnitude in a matter of hours. In order to prepare for this type of situation in the future, VERO asked ClearScale to develop a spike load simulation using Gatling. With the help of the Terraform automation, the environment is spun up in a matter of minutes, creating many small Gatling Injectors nodes in desired parts of the world which begin to bombard the application with lots of requests, simulating real user activity. All the data is being collected, recorded in NoSQL DB, and analyzed and visualized in Grafana. After the tests, all the nodes are terminated so as not to incur any charges.



The Benefits

VERO has achieved the ability to seamlessly scale the platform according to demand, with its environment separated into multiple AWS accounts for added isolation, all while keeping the account management as simple as possible.

In addition, migrating to AWS and introducing automated infrastructure deployment and management reduced the overall deployment cycle time and costs by a significant percentage. Also, the need to plan and order physical hardware to scale the platform was fully eliminated.

Fixing all the possible security gaps allowed VERO to ensure their users' data remains safe and they are fully compliant with the strict EU personal data laws.

Implementing automated load testing allowed VERO to simulate a "perfect viral storm" before it actually happens, re-play previous viral spikes, strengthen the core of their platform and make it highly scalable.

Overall, migrating VERO's platform to AWS allowed the customer to focus on what matters the most: providing the best experience and features for their users, rather than spending lots of time managing the unnecessary technical layers. ClearScale hopes this migration will help VERO remain the hottest and the most innovative social media platform in the world.