CONVOX

DevOps Case Study:
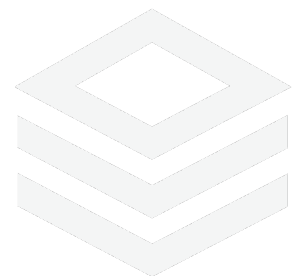## Simplifying Deployments and Improving Scalability for a Gaming Startup

To implement innovative ideas, startups need reliable infrastructure support and deployment facilities. Without these critical components, even the most innovative product will struggle to gain a competitive advantage in today's market. This is especially true for highly competitive industries such as gaming, where the standard requirement for success is high user engagement and high availability.

For example, scalability is crucial for success in the gaming industry during periods of increased demand (like during the Covid-19 pandemic, for example). However, scaling and deploying games across the internet can be challenging without the right tools. There is a lot to consider, from the technology stack to the deployment process, as minor decisions could significantly impact game performance and ruin the entire user experience.

This case study discusses how migrating its infrastructure to Convox helped Mattron Entertainment improve its availability metrics and meet high user demand during the pandemic.

Table of Contents

Case Study Objectives

This case study covers the problems faced by Mattron Entertainment pre-Convox, the premise and motivation for choosing Convox, and how Convox has helped to optimize the entire deployment process.

The Client

Mattron Entertainment is a startup focused on developing online games. The startup runs a lean team with two board members passionate about gaming with extensive industry experience. Mattron has released two multiplayer games so far - the Real Mah Jongg and the Real Canasta. Each game runs on an individual website and the app store.

The Background

Mattron's founder credits the Convox migration exercise as critical to the startup's ability to thrive during the Covid-19 global pandemic. Mattron had built its app on Ruby on Rails and hosted it using Heroku and a web socket tech called Action Cable.

Application Specifics

Most of Mattron's applications were offered as real-time Ruby on Rails apps along with several other game servers. While the Ruby on Rails app was hosted on Heroku, the other game servers were hosted using Digital Ocean with a database powered by MongoDB.

It also used a specific Go library called AnyCable to handle socket communication in its applications.

Build System

Custom-built packs were used for dependent libraries, with the main application built and hosted on Heroku.
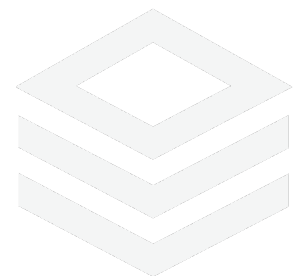
The Problem

PERFORMANCE SPIKES

Mattron observed that its shared hosting caused performance inconsistencies on Heroku-based applications. This, in turn, created inconsistent CPU usage poles. To improve overall performance, Mattron would have had to spend more on expensive ongoing subscription costs.

SCALABILITY

Scaling up with Heroku was expensive, thanks to the high cost of running dedicated dynos. But the problem persisted nonetheless. Mattron continued to face performance issues and felt that it needed to get more value from its investment with Heroku.

EASE OF USE

Because Mattron used custom-built packs, integrating all elements under one platform was challenging. It also found that starting from scratch with ECS seemed complicated, and the team needed a solution that came with a smaller learning curve.

THIRD-PARTY APP ISSUES

To get games up and running, Mattron had relied on several third-party systems (such as Netlify), which required upgrades to their subscriptions even for minor performance enhancements. Scalability was also an often-faced issue with these systems. Additionally, the team found it challenging to use the WebSocket adapter and AnyCable in combination with its Heroku hosting package.

The Solution

In the search for a better alternative to Heroku, Mattron discovered Convox's capabilities as a solution for simplifying ECS. This and a few other notable features stood out to the Mattron team:

EASE OF USE

With Convox, Mattron could quickly set up a production environment with much better control over the system's configurations. Convox's ease of use and compatibility with ECS was transformational and meant that Mattron could complete the setup in one weekend. Once set up, Mattron found the new system extremely reliable with little to no bugs or issues.

The solution proved to be a viable alternative to Heroku, which allowed better use of ECS and EKS.
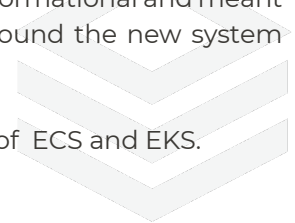
ABILITY TO SUPPORT ANYCABLE AND HYBRID CLOUD

The AnyCable WebSocket library helped Mattron to reduce its CPU usage by around 80%. This performance boost was facilitated by Convox infrastructure, which simplified the team's use of this library, increasing its operability.

End State

Mattron could quickly migrate and adapt its applications to the Convox platform and found it an easier way to gain more control over its app configurations. This significantly improved overall app performance at a much lower cost than previous solutions.

In conclusion, Mattron was able to thrive and adapt to changing customer habits during the pandemic with Convox. The migration to Convox helped the team scale effortlessly to meet the demand of rapidly growing online users without increasing expenses.

Key Takeaways

For startups running on tight budgets, the choice of infrastructure is a critical make-or-break decision. In Convox, Mattron found everything it was looking for in a PaaS - low cost, ease of use, and high-performance capabilities. Convox also fulfilled the unique requirement of making it simple to integrate third-party tech stacks such as AnyCable, while making the best use of AWS cloud services. In addition, the granular control provided by Convox helped the team work through their scalability issues, achieving the performance required to sustain the startup through uncertain times. A robust deployment platform like Convox addresses the scalability requirements of growing web applications by providing secure, reliable infrastructure that supports auto-scaling. If you want to see how Convox fits your team's needs, register for a free trial here or speak to a member of the Convox team.