



## Case Study

### About Ejimoo

Ejimoo offers a simplified alternative to traditional social media apps. Its unique and minimalist feature set delivers on its mission to improve the experience of social media and its impact on our culture. They target a younger and middle-aged consumer demographic in a highly competitive international market. Ejimoo is an early-stage company looking to make a splash in a landscape of billion-dollar brands. Where too little effort in marketing can stall an idea before it leaves the ground, strategic support from the right personality can be the catalyst to explosive growth.

### At a Glance

- ◆ 100% up-time
- ◆ Steady performance
- ◆ 22% lower time-to-market

### Challenge

Ejimoo needed a full-service development team to prototype and develop a social media mobile app. The app enables users to perform familiar operations, like following friends, engaging with users and posting original content. But its niche is in its simplicity. It excludes commenting, which can lead to a more divisive interaction dynamic. Instead, it provides a set of user-controlled interactions, providing an engagement model that is more positive and purposeful.

Through strategic onboarding of high-profile celebrities and highly-followed brand identities on other platforms, usage would be unpredictable and highly volatile. For example, one endorsement to a million followers could result in a significant surge of new signups and user activity. The system would need to absorb these usage fluctuations to ensure a positive user experience.

Rapid iterative improvement would continue to be necessary to establish brand distinction from dominant competitors in the space. Additionally, responding to market feedback from early adopters would be critical to building the brand.

### Why Gavant

As an AWS Consulting Partner with a strong focus on Serverless, Data Visualization and Content Delivery solutions, Gavant was uniquely qualified for this endeavor. Through collaborative co-creation, the Gavant team prioritizes continuous discussion to gain a deep understanding of a client's needs and to bring to life those ideas they create together with the client.

## Leveraging a Serverless Infrastructure

The near-term goal would be the delivery of a cross-platform mobile app to explore market opportunity and consumer acceptance. The iOS and Android apps needed to provide a fluid user experience and be a welcome alternative in an otherwise crowded market. Further out, we would respond to whatever market forces are found to be a driver of user adoption, delivering new features over a series of staged releases.

Gavant knew that an intense marketing effort and some high-profile personalities could cause dramatic spikes in system utilization. Consequently, we leveraged our expertise in AWS cloud services, establishing a robust serverless backend infrastructure to support and service the React Native mobile app.

Amazon API Gateway facilitated communication between the app and the backend infrastructure. REST APIs were used for servicing the app's general workflow while WebSocket APIs enabled two-way communication for functions like direct user messaging. AWS Lambda contained all of the application logic, serving both the APIs and a variety of asynchronous functions associated with user workflows. The content creation flow, for example, required image processing and video transcoding, two resource-intensive and compute-heavy operations that made Lambda the perfect solution. Amazon Aurora Serverless and Amazon DynamoDB enabled scalable data storage to align with the other serverless components involved in data flow. Amazon CloudFront provided fast and secure delivery of application assets, including user-created content like images and videos. And, all of these assets were stored in Amazon S3. The overall architecture was specifically designed to promote high scalability and high availability in response to heavy spikes in demand.

## Facilitating DevOps

With the serverless infrastructure in place, the final step was application and infrastructure monitoring to support ongoing DevOps. We leveraged Amazon CloudWatch to create dashboards for monitoring API and database utilization. This gave us visibility into the usage of those AWS services which have limits. As a result, we could proactively address service limits before they become a limiting factor. Additionally, AWS X-Ray enabled tracing of individual APIs at each step in the process. Consequently, we improved the optics around general performance optimization.

## Results

Ejimoo's launch went exactly as planned. The reliable and robust architecture maintained 100% uptime and application performance held steady across surges of new user adoption. Leveraging serverless technologies through AWS reduced time-to-market by 22% as compared with traditional server components. And, the flexible on-demand consumption of resources was the perfect match for usage volatility. With a lower total cost of ownership, Ejimoo is able to focus their ongoing investment toward product development and customer experience.

## Learn More

Learn more about serverless at <https://aws.amazon.com/serverless/>.

## About Gavant

Gavant Software is a custom software development firm that helps companies modernize and transform their business. We service a broad range of industries, providing software solutions that align with digital strategy and digital transformation. Gavant is an AWS Select Consulting Partner and Solution Provider. Hire the right team for your project.

For more information, contact Gavant through its website at <https://www.gavant.com>.