

# GK Data Solutions Builds a New Marketing Analytics App on AWS with Help from ClearScale

## GK Data solutions

### Executive Summary

GK Data Solutions provides data analytics support and consulting for marketing and promotion activities. The company advises on data processing and analysis, architecture/framework development, and enterprise deployment to support various brands, products, distributors, and field representatives. GK Data Solutions helps decisionmakers measure and optimize their marketing and promotion resources for maximum return on investment (ROI).

GK Data Solutions specializes in user-friendly capabilities by planning scalable solutions and migrating processes to cloud computing frameworks, including certification, accreditation, compliance, and data security. Using mobile applications GK Data Solutions captures near real-time field marketing and promotion performance and fuses this data with various other sources and sales metrics to provide a comprehensive picture of end-to-end marketing and sales performance.

"GK Data Solutions has in-depth experience with software development projects and has found working with ClearScale to be one of the most efficient ever experienced. ClearScale was able to quickly transition user requirements into an effective and scalable architecture. The agile processes with consistent and frequent interactions between users and developers quickly converged on a final solution with little-to-no corrections or changes. This was an extremely efficient software development project both in terms of cost and schedule."

Kevin Kuciapinski, PhD , President, NextGen Strategies and Results

## The Challenge

The team at GK Data Solutions recognized industry capability gaps and built a promotional marketing app for distributors, event managers, and their employees. In the past, these marketing professionals had difficulty tracking giveaways, samples, and marketing investment to map and measure sales conversions from their promotions.

Using this new web and mobile solution, marketers can schedule an event, staff it, and manage who attends. At the conclusion of the event, managers will be able to view and track the event metrics, such as the number of samples given away, the number of attendees and consumer contacts performed, the number of items sold, event feedback, and images from the event.

This app had very specific requirements, and had to be built and hosted in a serverless environment. GK Data Solutions turned to [ClearScale, an AWS Premier Consulting Partner](#), for development and implementation expertise.

## The ClearScale Solution

To meet GK Data Solutions' application requirements, the ClearScale team recommended using the [Amazon Web Services \(AWS\)](#) architecture. Then, they designed and developed the app, enabled AWS, and added integrations with Facebook and Google for user authentication.

**AWS Services Employed:** AWS API Gateway, AWS API Gateway, AWS Cognito, AWS S3, AWS Lambda, AWS SNS, AWS DynamoDB.

The new solution includes a Web Administration UI application that's accessible to two user groups:

- Event managers, for scheduling and staffing events.
- Administrators, for overseeing event managers and company settings.

This application is a static HTML page, hosted in a s3 static website. ClearScale built it using the React.JS Application. It uses an API realized via:

- AWS API Gateway, a service to create, publish, maintain, monitor, and secure APIs.
- AWS Lambda, an event-driven, serverless computing platform that hosts business logic functions of the application, storing data into a Dynamo database. Lambda processes requests from the API gateway, and performs specific actions, such as getting events, saving events, saving event logs, and more.

The ClearScale solution features a mobile iOS application for employees, allowing them to register, login, review schedules and events, clock in, manage their profiles, and post feedback. This application communicates with the mobile back-end API by sending requests to the API Gateway, which then calls the API Lambda functions.

The new solution also contains a backend, with an API to communicate with the Web Administration UI application, mobile application, and data storage.

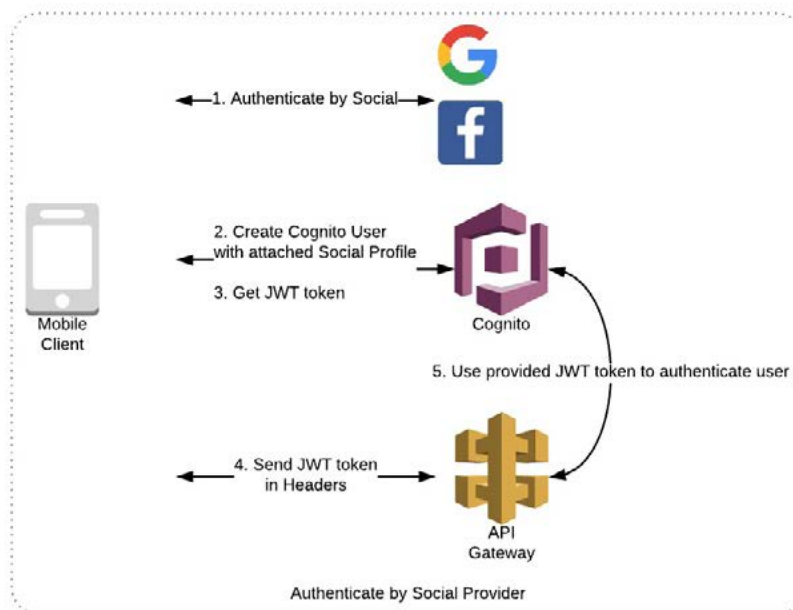
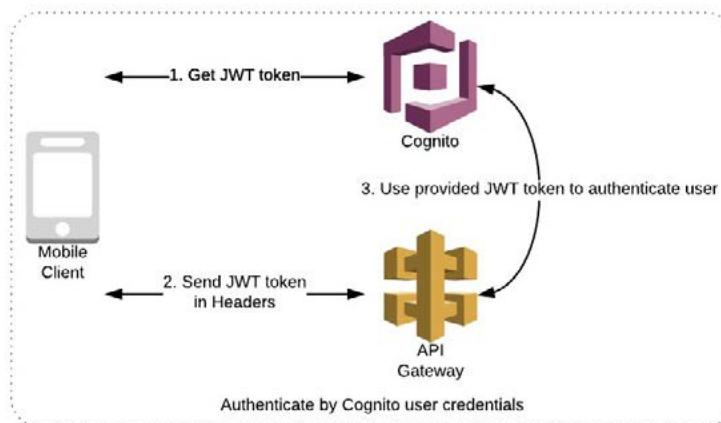
Different users will have access to different features of the solution. Employees will only be able to access the mobile application, where they can log in and out, view upcoming events, click in or out of an event, list and view event log information, and more.

Managers will have access to the Web Administration UI application. From there, they can log in and out, view and create events, assign employees to an event, view event staffing status, and more.

Employers and administrators will also have access to the Web Administration UI application, where they can log in and out, manage users, upload an events spreadsheet, and manage events.

With the new solution, users can either be authenticated by using a login/password specified during the registration, or by creating a user account through Facebook or Google accounts. Cognito is used to store users' credentials and profile data, including username, password, name, email, and phone.

### User authentication (by specific login and password, and by Facebook or Google accounts)



## Web UI

### 1. Events management

GK Data Solutions Users Events Notifications 0 Logout (alexey.korzhov@clearscale.net)

Create Event

All Logged and complete Unlogged and scheduled


Sponsor	Period	Address	Venue	Details	Employees
Wine Country	12 May 2018 10:00 am 12 May 2018 11:00 am	555 Main St	Temecula	hello	and 1 more
UTC 1 test	12 May 2018 08:00 am 12 May 2018 09:00 am	125 Main St	Denver Flagship Store	test	and 1 more
UTC 2 test	12 May 2018 07:05 am 12 May 2018 08:02 am	125 Main St	Denver Flagship Store	test	
UTC 3 test 3	12 May 2018 01:06 am 11 May 2018 02:04 pm	123 Main St	ee	ee	
New Balance shoes version 2	12 May 2018 12:47 am 12 May 2018 01:00 am	125 Main	Denver Flagship Store	pass out laces two ti...	

### 2. Event log viewer

GK Data Solutions Users Events Notifications 0


## Alcohol Brand

29 May 2018 12:00 pm - 31 May 2018 12:00 am



**Andrew Belov**  
abelov@gmail.com

Clocked In: 29 May 2018 08:14 pm  
 Clocked Out: not yet  
 Total Time: a few seconds  
 Count Prior to Event: 3  
 Count After Event: 10  
 Number Drinks Sold: 19  
 Price: 0.0  
 Number of Samples: 5

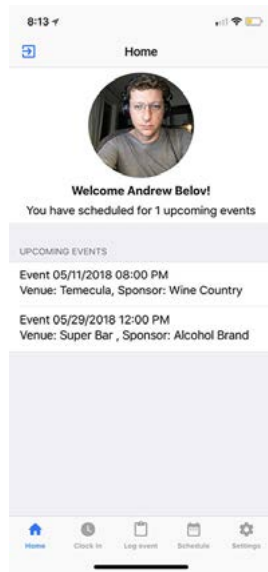


## Mobile UI

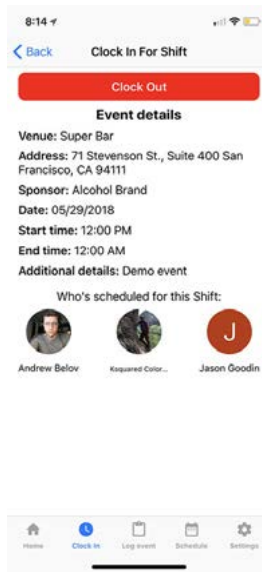
1. Login page



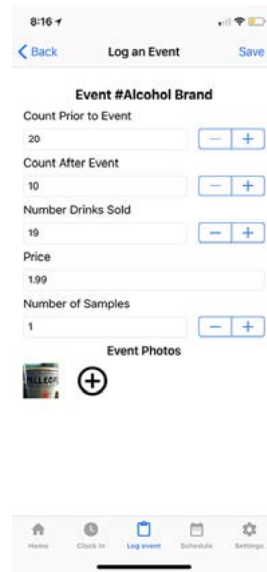
2. Main page



3. Event Details



4. Event Log



5. Schedule



## The Benefits

GK Data Solutions' goal was to deploy a cost-effective, scalable, flexible, and easy-to-use solution for end-user marketers. ClearScale partnered with GK Data Solutions throughout the development and rollout stages, and was able to meet each of these requirements.

Leveraging expertise in application development and AWS, ClearScale was able to build the solution quickly and efficiently, while providing both a staging and production environment within AWS to the client.

Thanks to this solution, marketers now have an easy way to track their giveaways and sales conversions from their promotional marketing campaigns. Going forward, GK Data Solutions will continue to engage with ClearScale, and can easily add new features to the solution. As GK Data Solutions' and marketers' requirements change, the solution will continue to evolve to keep pace with the rapidly-changing industry landscape as well as maintain parity with AWS enhancements.