

Kahuna drives mobile customer engagement through real-time insights with Google Cloud Platform



About Kahuna

Founded in 2012, Kahuna is a mobile marketing automation company based in Mountain View, California. Kahuna provides an online platform that automatically identifies mobile usage behavior and delivers personalized campaigns to maximize usage and revenue.

To learn more, visit www.usekahuna.com

At a Glance

Google Cloud Platform Results

- Serving many of the world's largest companies
- Increasing mobile usage for several companies by 200+%
- Sending millions of messages to tens of millions of customers monthly

Automated mobile-engagement engine

Enterprise-software industry veteran Jacob Taylor and growth expert Adam Marchick founded Kahuna with a simple but very ambitious goal—to create an automated mobile-engagement engine that would turn people who downloaded a mobile app into truly engaged customers. To succeed, they had to use a platform that could support a very large number of users and unpredictable traffic patterns. Google App Engine, a Google Cloud Platform service, provided the scalability they needed.

A platform to handle size

Kahuna's customer engagement engine understands user behavior and helps mobile marketers engage customers in personalized ways that drive usage and revenue. Now active in 14 vertical markets, Kahuna works with companies that range from three-person startups to \$10 billion global giants.

Creating an engine that could handle such wide variations in size and scope required some serious technical capabilities. "It was really important that we pick a platform that could scale," says Taylor, Kahuna's chief technology officer (CTO). "And we're happy we picked Google App Engine."

'Millions more engagements'

The Kahuna engagement engine automatically creates a dynamic profile for each user and unifies behavior across web and mobile. It then delivers highly personalized and automated push-notification campaigns that client companies can track and adjust in great detail and in real time.

Marketers need to understand customers and engage them with personalized conversations. With Kahuna, they might run five messages simultaneously, then quickly and easily compare the return on investment (ROI) for each. The marketer can then focus on the most productive and eliminate the others. One large online retailer has "millions more app engagements because of Kahuna," says Marchick, Kahuna's CEO.

"Our goal has been to be insanely reliable, easy and quick to implement, and very robust. Google App Engine is how we've been able to achieve that."
—Jacob Taylor, cofounder and CTO, Kahuna

Billions of user profiles

Kahuna sends millions of messages each week to tens of millions of customers. "My goal was to make a system that could scale to Google scale," Taylor says. "If you have a few billion people using your app, excellent. I wanted to be able to support that. I wanted individual profiles for every one of them, and I wanted perfect data."

About Google Cloud Platform

Cloud Platform provides tool for modern applications. It lets developers build, test and deploy applications on Google's highly-scalable and reliable infrastructure. Choose from computing, storage and application services for your web, mobile and backend solutions.

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About Google App Engine

App Engine is a complete development stack that uses familiar technologies to build and host applications on the same infrastructure that we use at Google. We provide familiar development tools that let you build, test, and deploy quickly. As your app fluctuates in usage and changes are made, App Engine adjusts the systems so your users don't see errors. You use the same infrastructure that powers Google's applications with a 99.95 percent Service Level Agreement (SLA).

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Google App Engine helps Kahuna meet those huge challenges. "The Google model was much more elastic and scalable than everybody else's," Taylor says. "One of the advantages is that you don't need to tell Google hours in advance that you need to scale. When your app hits the front page of the App Store, and your traffic increases 100 times, the servers are there. You can go from 50 machines to 5,000 machines at the drop of a hat—and we have."

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Other valuable features

Beyond the scaling features, Kahuna uses nearly everything that Google App Engine offers. "We use dedicated memcache to store things that are highly changing and that we need to access very quickly," Taylor says. "We use App Engine Datastore for two things: to store the tens of billions of rows that we already have, and to take additional traffic if we go beyond what memcache can readily handle. We just throw that extra weight on the Datastore, and it does a great job."

Kahuna also uses App Engine's Task Queue API. They can pause Task Queues and control what companies are running, to perform maintenance and make updates on an operational system without interruption. "Our users just see the new features," Taylor says. "They have no down time." All the while, the Kahuna engagement engine sees only about one error per million hits—"the system is always operational," he says. "We have near-real-time profiles of every single user we've ever seen. Basically, we're using pretty much everything App Engine has to offer."

'Insanely reliable'

Google often provides engineering advice and support for Kahuna's ambitious use of App Engine. "Our goal has been to be insanely reliable, easy and quick to implement, and very robust," Taylor says. "Google App Engine is how we've been able to achieve that. It's just the most stable, most reliable, most scalable system I've ever worked on."

