Case Study.

SADA Helps MadHive Deliver Blockchain Ad Tech with Privacy by Design

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- Denis Kezerashvili, MadHive's SVP of Engineering

Business Challenges:
MadHive's technology is a completely new approach for ad tech. Leveraging blockchain and technology at scale can be a real challenge, requiring serious scalability coupled with reliably low latency and massive processing power. Add to that MadHive's sophisticated machine learning requirements and a short timeline to get to market, and you've got a tall order for a cloud provider. The MadHive team knew not just any cloud provider would suit their needs.

Solution:
To face this challenge, SADA recommended Google Cloud Platform (GCP), based on the cloud provider's reputation for handling huge-scale data and low latency requirements. "Google definitely had the right solution," says Tom Bollich, MadHive CTO and former Zynga founding team member. "At Zynga our products generated so much demand that we had to scale out our infrastructure to match all of Facebook's. AWS was too piecemeal to do that effectively. Google has 'recipes' for everything we need to do at scale with data." GCP's industry-leading machine learning engine, as well as its large suite of plug and play tools, makes them a natural partner for MadHive.

SADA's consultants first analyzed the limits of the Kubernetes- and Docker-based implementation MadHive had previously used for prototypes. Then they applied their in-depth knowledge of GCP to help MadHive redesign the entire platform using Google BigTable, Google App Engine, and TensorFlow.

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Client:
MadHive

Website:
https://madhive.com/

Country or Region:
United States

Industry:
Ad Tech

SADA Service(s):
Consulting

Customer Profile:
MadHive is the blockchain ad-tech firm that developed the MadNetwork protocol, for accurate, efficient, and completely private ad serving. Using blockchain technology, machine learning models, and artificial intelligence agents deployed to users' devices, MadHive has created a platform where the traditional ad tech intermediaries are unnecessary, and advertisers can target consumers more effectively without ever accessing their "personally identifiable information." As consumer privacy regulation mounts in key ad markets, MadNetwork's technology marks a major step forward, allowing advertisers and publishers to reach their intended audience while simultaneously delivering complete privacy to the consumer.

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SADA assisted on the research side as well. "Blockchain gave us a platform to push machine learning out to the edge," says Aaron Brown, MadHive's VP of Engineering. "Google's TensorFlow and Cloud ML were the perfect tools to build on. It let us focus on our core tech: fully private targeting through collaborative and anonymous machine learning."

Results

It began with an analysis and a redesign, but SADA System's work with the ad tech company continues. MadHive continues to reap the benefits of SADA's expertise and the GCP toolkit at every stage.

- MadHive's network responds to traffic surges while maintaining extremely low latency and high availability for all users.

- MadHive is saving 60% on cloud services with GCP, due to building more efficient scaling and lower latency reads and writes.

- When MadHive hits limits of certain Google products, SADA is immediately available to assist, either by suggesting an alternate implementation or connecting MadHive engineers directly with Google Cloud engineers to work on problems together, quickly.

- The MadHive team spends its time researching, iterating, and deploying, instead of patching scaling issues and performing DevOps.

Ultimately, MadHive's success will benefit consumers, advertisers, and publishers, delivering full compliance for regulations like the EU's General Data Protection Regulation (GDPR) which goes into effect in May 2018. Using the collaborative machine learning models enabled by TensorFlow, and deploying those models to the MAD Network's blockchain, Madhive is recreating digital advertising with privacy by design.

SADA Systems is proud to be part of such a transformative moment in advertising technology.

Partner Profile:

SADA Systems, Inc. is a privately-held global leader in providing business and technology consulting services that transform organizations through innovative cloud-based solutions. As a Google Cloud Premier Partner, SADA Systems has proven expertise in enterprise consulting, cloud platform migration and deployment, custom application development, managed services, user adoption and change management.

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Connecting the Dots to the Cloud