

# Tapjoy's lean, mean big data machine

## Only 2 part-time DBAs needed to run mobile app ad platform analytics

### Objective

Design mobile ads that engage users and inspire interaction

### Approach

Leverage big data analytics to better understand and enhance ad performance and how ads inspire user behaviors

### IT matters

- 2 million ad engagements per day
- 15 Terabytes of data per day

### Business matters

- 500 million global mobile users
- Only 2 database administrators needed to support data analytics platform
- 100 people logged into BI tools running queries into the HPE Vertica database



Digital publishers need to monetize their work—and one of the ways to do it is through digital ads.

But creating effective mobile ads isn't easy. Ads must attract attention. They must inspire interaction. But they have to attract attention and inspire interaction without degrading the user experience or intruding negatively on other components of the app, website, or social media site.

That's where Tapjoy, a mobile advertising services provider, can help. Instead of building traditional, static presentation ads, Tapjoy creates advertising solutions that actively win user attention and even loyalty. When users engage with Tapjoy ads, they typically get some sort of reward, such as virtual currency for a mobile game or a discount. Some Tapjoy advertising solutions go even further by giving users of one app the opportunity to download others.

"The key to Tapjoy's success is engaging the users and rewarding them for engaging with an ad," explains David Abercrombie, Principal Data Analytics Engineer, Tapjoy.

It's a model that relies heavily on the HPE Vertica Data Analytics Platform.

### Easy to manage, well-behaved and stable

The interactivity of mobile ads means they generate enormous amounts of data—data that Tapjoy can use to meet the needs of all three of its constituents: advertisers, publishers and users. Tapjoy uses data analytics to generate insights on ad pricing and how to pair ads with apps. It leverages analytics to identify and cultivate users who are likely to interact with ads. "We want good users who will continue their engagement," Abercrombie explains. Data analytics helps the company discover those users and deliver them to advertisers.

"The benefit of HPE Vertica has been a clear understanding of the day-to-day operations of our ad network."

– David Abercrombie, Principal Data Analytics Engineer, Tapjoy

Abercrombie characterizes Tapjoy's data analytics platform as a hybrid architecture. Elements include Hadoop; Spark; MicroStrategy as the Business Intelligence application; and

## Customer at a glance

### Industry

- Advertising

### Primary software

- HPE Vertica Data Analytics Platform

HPE Vertica to perform high-speed queries. Tapjoy uses the platform to support monitoring of its internal systems and instrumentation, as well as the performance of its customer-facing advertising services.

“We found HPE Vertica very easy to manage,” Abercrombie notes. “It has been very well-behaved, very stable.”

The solution’s stability helps ensure that Tapjoy has a high degree of confidence in its data quality and Extract, Transform and Load (ETL) processes. This gives Tapjoy “a very clear understanding of the day-to-day operations of our ad network.”

HPE Vertica’s ease-of-use helps the company minimize its overhead costs: Tapjoy manages its mobile app data analytics with only two part-time database administrators.

And the solution’s capabilities will become even more important in the future. Tapjoy expects to increasingly blend in-app purchase optimization with traditional ad network optimization. To do this, Abercrombie explains, “we really need the flexibility and expressiveness of our real-time decision-making systems.”

Mobile advertising, Abercrombie notes, is “a tough business. People are saturated. Many people don’t want ads. Some of the business models are difficult to master.”

By harnessing the power of big data, Tapjoy successfully navigates these challenges—and its rewarded ad engagement model injects fresh energy into the mobile advertising industry.

Learn more at  
[hpe.com/Vertica](http://hpe.com/Vertica)

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