Upic

Accelerating performance of key united way donor app by nearly 50 per cent with CA BlazeMeter

> "Serving the page isn't good enough, you have to serve it fast enough for conversion."

David Burley
Upic Chief Technology Officer

Challenge

Upic Solutions was founded in 2001 as a technology provider for United Ways. Upic hosts various business apps for these non-profit organizations, including a donor pledge app enabling companies to raise funds for local causes. During the campaign season in 2015, the performance of this key app was poor. Slow pages meant that donors couldn't pledge.

Before the start of the 2016 campaign season, the Upic team, led by David Burley, decided to look for a tool to test and analyze why the donation system was so slow. As some members of the 23-strong team had experience with JMeter, they started with this open source tool, believing it to be the fastest way to build a reasonable task case.

However, they also needed to see sessions on a fully functional browser – or as close to one as possible. The team found that although Selenium is good for functional testing, it's problematic when it comes to load testing. At this point the team turned to CA BlazeMeter.

Solution

Using JMeter, CA BlazeMeter, and the application monitoring tool New Relic, the team built a test plan, executed the tests and analyzed the results. Over a two-week period, they ran 150 tests for up to 100 concurrent users. Each test scenario had up to 2,400 page loads – with an average of 600 database calls on each page load.

CA BlazeMeter allowed them to rapidly see that the app was not successfully scaling, and data from New Relic enabled them to pinpoint why.

> "CA BlazeMeter facilitated rapid iterations and evaluations, enabling us to immediately see the results of a change while we were tuning the app performance."

David Burley
Upic Chief Technology Officer

The team quickly identified excessive SQL queries were to blame for the application's poor performance, and reported those results to the application developer. While waiting for the developer to fix the root cause, the team identified areas for potential improvement. By rapidly iterating on changes, and testing those changes with CA BlazeMeter, the team identified configuration changes with immediate positive results.

Results

BEFORE: Before adopting CA BlazeMeter, Upic Solutions' business app was taking 5.33 seconds per page load, on average.

AFTER: After the testing and reparation process, the app's average page load time dropped to 2.84 seconds, a 46.74 per cent improvement. Additionally, donation conversion rates improved by 9.17 per cent.

Dramatic improvements were made but their work is ongoing, and the team uses CA BlazeMeter to constantly evaluate the app performance. This is particularly crucial during vendor changes and in the run up to the busy campaign season.

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