



Web Performance  
Testing

# Aiming a million extra concurrent users at Myspace

Myspace launched a new music video series in New Zealand that included streaming video, favorite lists and search. Anticipating a huge increase in server load, they supplemented existing live traffic with performance-test traffic to get an idea of the impact of the new video offering.

## Company at a glance:

### COMPANY

Myspace drives social interaction by providing a highly personalized experience around entertainment and by connecting people to the music, celebrities, TV, movies and games that they love.

### CHALLENGE

To test the performance of its application infrastructure, Myspace decided to supplement its live traffic in New Zealand by 1 million simultaneous users. Where do you get those users, and how do you get them all to hammer away at your site at the same time?

### SOLUTION

Realizing that cloud computing would be the most sensible source for that much test traffic, Myspace turned to the SOASTA CloudTest® platform, which took less than 20 minutes to deploy 800 Amazon EC2 instances that generated more than 77,000 hits per second.

- Test cases split between searching for and watching music videos, rating videos, adding videos to favorites and viewing artists' channel pages.
- Transfer rate of 16 gigabits / second.
- 6 terabytes of data transferred / hour.
- More than 77,000 hits / second in addition to production traffic.

## A World of Music & Video Fans

When music and entertainment fans all over the world rely on your website for high uptime and smooth audio/video playback, how can you make sure you won't disappoint them?

Ahead of launching a new, traffic-intensive video service in New Zealand, Myspace wanted to probe its infrastructure for breaking points, define its capacity thresholds and know how to react if the load should exceed those thresholds.

## Add a Million Virtual Users

Myspace decided that adding the load from one million virtual users to the existing, pre-launch load would be an adequate performance test for its infrastructure. The only source for such a huge supplement lies in the cloud, so the company turned to SOASTA CloudTest.

The Myspace operations team specified the load they wanted to impose during testing.

- 1 million concurrent virtual users
- Test cases split between searching for and watching music videos, rating videos, adding videos to favorites and viewing artists' channel pages
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- 6 terabytes of data transferred per hour
- Over 77,000 hits per second, in addition to live, production traffic

CloudTest made calls to the Amazon EC2 API, requesting 800 EC2 large instances in groups of 25 servers at a time. It also called 2 EC2 extra-large instances to act as the test

controller and the results database. This took about 20 minutes to spin up.

Once CloudTest had instantiated the EC2 servers, it performed stability checks on them, then discarded and replaced any dead units until it had a healthy population.

While the tests ran, the load generators sent data back to a single analytics service connected to a PostgreSQL database that aggregated performance test metrics. With the volume of data generated in a test of this magnitude, it was necessary to limit access to the database to the metrics aggregators and then scale out horizontally.

## Scale Tends to Break Things

It's not easy to execute performance testing on this scale, especially with streaming content. After opening threads and sockets, each server must wait for the download or stream to finish; meanwhile, it is unavailable to generate more load. At that rate, it can take a long time to simulate 1 million users.

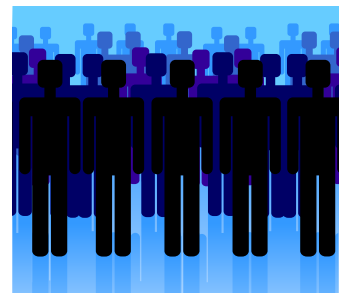
Stressing Myspace stressed the test platform in other ways as well. SOASTA and Myspace made three important changes.

First, Amazon's then-current limit of 800 test instances meant that each load generator had to simulate 1300-1500 users. To reduce strain on them, SOASTA performance engineers staggered the requests from each virtual user and pared down data collection to the metrics needed for performance analysis.

Next, Akamai serves a large percentage of Myspace assets, and the tests

# A million

concurrent virtual users.  
Watching, searching,  
playing music videos.



Why not test your site and application with one million extra virtual users and see what happens? The only source for such a huge supplement of one million concurrent virtual users lies in the cloud, so Myspace turned to SOASTA CloudTest.

repeatedly maxed out specific Akamai points of presence (POP), resulting in test errors. Generating load from multiple POPs helped to spread the demand among datacenters.

Finally, because they were able to monitor capacity in real time across their entire infrastructure, the Myspace operations team quickly reallocated underutilized servers to the video site cluster as traffic spiked. The real-time addition of capacity helped the site withstand the stress testing.

## About SOASTA, Inc.

SOASTA is the leader in cloud testing. Its web and mobile app test automation solution, the CloudTest Platform, enables developers, QA professionals and IT operations teams to test with unprecedented speed, scale and precision. The innovative product set streamlines test creation, automates provisioning and execution and distills analytics to deliver actionable intelligence faster. With SOASTA, companies can have confidence that their apps will perform as designed, even in peak traffic. SOASTA's customers include American Girl, Chegg, Gilt Groupe, Hallmark, Intuit, Microsoft and Netflix. SOASTA is privately held and headquartered in Mountain View, California.



The screenshot shows a Myspace profile for 'MyTry'. The profile includes a navigation menu with options like Music, My Playlists, Music Videos, Charts, Music News, and Events. The main content area features a 'Featured Song' section with a play button and the title 'Nothing Ever Comes The W...'. Below this, there is a list of songs with their durations and play counts: 'Nothing Ever Comes The Way It's ...' (3:31, 337 plays), 'Paris Isn't Made For Lovers' (3:13, 179 plays), and 'Onetwothree' (1:53, 789 plays). A 'Total Plays: 18,363 / Plays Today: 5' summary is also visible. The 'General Info' section lists the genre as 'Alternative / Pop Punk / Rock', location as 'Fürstentfeldbruck, Bayern, DE', profile views as 48022, last login as 4/10/2012, and member since 4/18/2008.

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