

Government Agency

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Impact Highlights:

- The hospitality company decided their application needed thorough, real-world load testing to ensure it could handle heavy customer traffic without performance degradation.
- Keynote was able to realistically simulate a variety of online user behaviors and accurately measure not only Web site performance but also customer satisfaction with the site at different performance degradation levels.

Hospitality Company uses Keynote LoadPro to Ensure Successful Site Launch

The Situation

Similar to many companies today, a leading hospitality company decided to reduce costs and improve customer service by using the Internet as a channel for their premier customers. They developed an online account management application, allowing property owners to check statements, pay fees, and manage their accounts online quickly and easily.

The company’s goal was to encourage more customer interaction via this new online account management application instead of via their call centers or through regular mail. Online self-service account management promised improved efficiencies and cost reductions for customer service and collections but only if their customers had a positive experience in using this new application.

The company understood that providing a high quality of user experience was critical to the success of the project and

widespread adoption by their customers. Because a core component of user experience quality is high site availability and performance, the company decided the application needed thorough, real-world load testing to ensure it could handle heavy customer traffic without performance degradation. With the application launch fast approaching and no in-house expertise or resources to perform load testing, the company quickly realized that outsourcing the project to load testing experts would be the best course of action.

The Solution

As a happy customer of Keynote for ongoing Web site performance and availability monitoring, the company contacted Keynote for more information about LoadPro, Keynote’s award winning outsourced load testing service for Web applications. After evaluating multiple vendors, the company selected LoadPro because of Keynote’s ability to realistically simulate a variety of online user behaviors and accurately measure not only Web site performance but also customer satisfaction with the site at different performance degradation levels. The company

“The Keynote study gave us specific feedback from a panel customized to meet our business objectives,” said Wardein. “As a result, we know with confidence that our site is sending a message that resonates with our target market, resulting in a higher likelihood of converting casual browsers to paying customers.”

was also impressed with Keynote’s load testing experience. Keynote has conducted hundreds of complex load tests for mission-critical e-business sites for companies such as FoxSports.com, Costco, Toys R Us and Motorola. Another important factor in selecting Keynote was the full-service nature of a LoadPro engagement. Keynote load testing experts could be counted on for every element of the load test planning and execution:

- Analysis of Web logs
- User behavior modeling
- Test plan development
- Script development
- Calibration Run
- Test execution
- Test results analysis
- Summary report and post-test consultation

The Results

After developing appropriate user behavior profiles and scripts, Keynote developed and executed a load test for the company’s online account management application, simulating customers accessing the application from different locations around the world via varying connection speeds. The purpose of this load test was to determine if the application would be able to handle a realistic traffic storm while maintaining acceptable page response times.

The company’s application performed well during the first load level of 500 sessions per hour. The average response time per page was less than 6 seconds, a good number considering that most customers were simulated dialing in via modem.

As the traffic increased to 1,000 sessions per hour, the average page response time increased to

over 12 seconds, while the user abandonment rate increased to 12.5%. As the load was increased further, the average page response time jumped to over 30 seconds and the abandonment rate climbed to 60%, meaning 6 out of every 10 customers were abandoning the site out of frustration before completing their session.

With this first test, Keynote’s load testing experts quickly demonstrated that the online application, as currently designed and implemented, could not handle the anticipated growth in traffic levels while maintaining acceptable page response times and availability.

With Keynote’s help, the company analyzed the effects of the increased load on its bandwidth, servers, and network equipment and made some adjustments. After a few more load test and tune cycles, the revamped system was brought under load a final time starting at 1,250 sessions perhour and ramping up to 5,000 sessions per hour. The company’s reconfigured application performed extremely well. Dial-up customers saw page response times of less than 3 seconds and the user abandonment rate decreased to almost 0.

This final load test by Keynote demonstrated that this company’s application, after some tuning, could handle real-world traffic while maintaining acceptable page response times. With the help of Keynote, the company was able to realize a 10-fold increase in application capacity and be confident that high traffic wouldn’t negatively impact their customers’ experiences online. The company successfully launched the application and has seen customer adoption rates climb tremendously in less than 2 months while

experiencing no degradation of performance. In addition, the company estimates it has saved over \$10,000 in customer support and collections costs since the successful launch of their online account management application.

About Keynote

Keynote Systems (NASDAQ "KEYN") is the global test and measurement company for mobile communications and online business performance.

As an independent and trusted third-party, Keynote provides IT and marketing executives with an unbiased view into their Internet services from around the world. For over a decade, we have been providing measurement data and testing capabilities that allow companies to understand and improve their customer's online and mobile experience.

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