

Fortune 500 Electricity & Natural Gas

Minneapolis, MN

Industry

Energy & Utilities

Employees

12,000

"You guys nailed it with your approach, on demand tools and the Expleo on and offshore professionals... Great job and so glad you are our partner!"

- CIO

"From the time we asked for your qualifications to the time you were able to toughly demonstrate your capacities to address our complex performance challenge was less than three business days- I have never had a vendor be so professionally responsive. That added a great deal of confidence to me and the team as our timeline to begin executing tests was very short!"

- Business Systems Portfolio Director

"You guys nailed it, the fact that you were able to respond to us within days of our request with an approach and the tools that could meet our tight timelines was as impressive as the execution of the tests themselves"

- Director of Information Technologies Operations



ESSENTIALS UTILIZED

MANAGEMENT CONSULTING

BUSINESS AGILITY

CONTINUOUS QUALITY



trissential.com

Trissential and Expleo Partner to Deliver On-Demand Performance Testing

This Fortune 500 client, based in Minneapolis, Minnesota, provides power to millions of electric and natural gas customers in eight Western and Midwestern states.

CHALLENGES

In the summer of 2015, large portions of Minnesota were struck by a strong storm that took down many power lines across the client's coverage area. The client's customers turned to the Outage Information section of their website to determine if their outage was known and get status updates on power restoration time estimates. Due to the large number of customers impacted by the storm and the extent of the damage, the website experience high volume over an extended period of time and was not able to adequately handle the event.

Faced with frustrated customers and risk of fines from the Public Utility Commission, the client embarked on an effort to understand the cause of the system performance issues and put corrective actions in place. Trissential, partnered with Expleo, was selected as the only technology services provider to the client that could confidently stand up a performance testing solution in the required, compressed timeline.

SOLUTION

On-demand cloud based performance testing was chosen as the best approach to quickly execute tests to help identify the root cause(s) of the web application performance issues.

Trissential assigned a local Project Manager to be on-site at the client and coordinate efforts with the Expleo Belfast, UK On-Demand Testing team. This approach allowed the combined Trissential, Expleo and client team to gather requirements, design and build the test scripts, establish a client-staffed system monitoring team and execute the first full performance test within a 10 day period.

Expleo on-demand performance and load testing:

- A cost effective, cloud based service that provides on-demand performance and load testing of a customer's applications and infrastructure, with minimal buyer effort
- Highly flexible to suit customer release cycles and offered on a "Pay As You Go" basis – avoiding the need for the customer to pay for expensive resources when they are not operationally needed
- Utilizes specified user journeys and profiles, against which agreed user numbers are ramped up to monitor:
 - o Changes to the response time as the application is put under stress
 - o Max response time
 - o Throughput – any impact on application capacity under load
 - o Error and return codes to help identify potential performance bottleneck causes
- Paired with system infrastructure monitoring results, is an effective way to examine both the user experience and system response under load

RESULTS

The first test execution proved that the web application could not handle the necessary transaction volume, established a baseline performance level and helped highlight areas that warranted further attention for hardware upgrades and component tuning. Over a series of six total test runs across five months, performance steadily improved with each change implemented by the client. On the sixth run the web application handily met the performance and load volume targets. Throughout the process, our Test Engineer provided insight, observations and suggestions on potential causes for performance issues. The client now has full confidence that the outage information functions are ready for the next high volume event.

Trissential and Expleo remain as an ongoing partner for continued performance testing as new functionality and technology changes are applied to the client's website and supporting infrastructure.