

Case Study





Our Client

Our client is a leading organization in the experience gift market. The company operates in more than nine countries in different geographies with different brand names. The experience gifts range from multi-theme events to adventure and cultural tourism. These services are available at different online channels as well as the company's website.

Project Challenges

In the last few years, the experience gift market has grown substantially. The client, too, has expanded to different countries and increased its online presence. Test Triangle's services were availed by the client to analyze the application capacity and performance bottlenecks. Test Triangle was responsible for end-to-end performance testing of the system hosted on Google cloud. The application should be able to cope with the demand generated at any time or from any location and the customers should have a seamless experience with the application. As the application was hosted on Google Cloud, several unique challenges were faced in its testing:

- The business application was hosted in a third-party environment that cannot be controlled by the testers which made it necessary for the testers to replicate the real user environment and traffic flow to test the application
- The client has no prior experience with the cloud, so it was challenging to find the exact performance testing tool that integrates well with the cloud platforms
- It was important to test the application both inside and outside the firewall fo better pinpointing where the performance issues are occurring



In addition to it, there were several other project requirements:

- The client wanted region-wise response time break-up of users accessing the application
- The application breaking point has to be identified with performance load testing
- It was necessary to identify the baseline of application performance so that it can be used as a benchmark for future application release
- A scalable performance testing framework was required
- A reliable and customizable load generation environment was needed which can be tailored to replicate the actual environment
- The client also needed an estimation of the bandwidth usage that needs to be mapped according to the existing usage of the application

Technology Stack

StormRunner load, Jmeter





Solutions Provided

Test Triangle analyzed the client's requirements and proposed following solution:

- StormRunner Load was selected to test the client's application due to features like error monitoring, dynamic addition of load during the test run, and support for several browsers
- The performance test methods were attempted from two different geographies in Europe and Asia to capture real-time end user experience. The load simulation was conducted without any hardware setup or maintenance
- Test Triangle made a detailed log analysis of the application, which can be used to predict the bandwidth usage pattern of the application
- We created a blueprint for generating load on the application for real-time analysis
- Test Triangle conducted several load test runs to identify the baseline response time of the applications





Benefits Achieved

- Test Triangle used Microfocus StormRunner load to test the application in the cloud-based production environment. With the appropriate tool, we achieved scaling, comparable to the real-time production environment. Therefore, testing could be performed with identical traffic rather than a subset of users
- Test Triangle provided insights on the performance of the application from diverse geographical locations by generating traffic from multiple locations
- A cost-effective solution was delivered as the client was only needed to pay for load generators and licenses which were used in the testing
- With Microfocus StormRunner, the load was generated at maximum capacity, so, several real-time problems were identified that cannot be identified at medium capacity. With this analysis, the client obtained a realistic picture of the actual issues and made adjustments to solve the problem
- We achieved 54 percent cost-saving on performance test tools and infrastructure



About Test Triangle

Originally founded in 2012, Test Triangle has become a leader in IT consultancy services providing services in application testing, DevOps, RPA, Custom software development, mobile app development, Atlassian consultancy, niche IT staff augmentation and training in advanced technologies. Test Triangle is headquartered in Ireland; but it also has branch offices in London, United Kingdom, and Hyderabad, India. We have exponentially grown to become a team of 200+ members providing services in different verticals such as Banking & Finance, Utilities, Pharma, Retail, IT & Education etc.

Test Triangle's R&D department has created a propriety platform, Test Outsourcing Dashboard [TOD] which can be used to manage software testing lifecycle using collaboration tools like email, live chat, video conferencing. We have also launched a self- service testing platform (the premium version will be released as SaaS solution), which can provide a project overview and real-time updates of the software development lifecycle.

Over the years, we have established the reputation of being a 'trusted partner in IT consulting'. Test triangle is an agile software company, which constantly strives to exceed the expectations of its clients. We adopt the software testing and software application lifecycle to meet the customer's demand in an efficient and reliable manner. With a global workforce, we have proved ourselves in delivering tight-deadline projects.

We are proud to declare ourselves a client of Enterprise Ireland and European commission.





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