

Performance Testing: Black Friday - Proactive steps to address a website performance

Background

The global pandemic brought a surge in online shopping activity, significantly increasing user traffic and engagement on eCommerce platforms. To address this, many clients implemented proactive measures to manage unexpected load surges, ensuring a seamless shopping experience and business continuity.

November is particularly critical for retailers preparing for the Black Friday sales event. One client approached Gigs-Tech Testing to perform load and stress testing on their eCommerce site, which had previously crashed during the 2020 event due to sudden traffic spikes. Our consultants worked to optimize the site's performance and rigorously tested the upgraded platform to ensure a smooth go-live.

Our Role

Our team recognized the critical nature of the client's requirements and developed a custom JMeter framework to execute targeted load and stress tests. The framework was designed to replicate realistic user scenarios, providing confidence in the site's ability to handle anticipated traffic volumes effectively.

Challenges

During testing, a significant issue emerged: the site's sale page became slow and unresponsive under heavy user loads. To address this, we implemented a virtual queue system that prevented site crashes by managing traffic spikes effectively.

Results

- ▶ **Stability Under Load:** On Black Friday, the site handled a sharp surge in user traffic without any downtime.
- ▶ **Optimized User Experience:** The virtual queue ensured smooth navigation for users already on the site, while others were queued seamlessly when capacity limits were reached.
- ▶ **Enhanced Efficiency:** Comprehensive performance testing not only optimized the platform but also safeguarded the client's business from potential losses during peak events.

Conclusion

The proactive testing approach ensured the client's site delivered a reliable and enjoyable shopping experience during the high-pressure Black Friday event. By improving efficiency and scalability, Gigs-Tech Testing provided a robust solution, helping the client achieve a successful sales period.