Ptak Associates
Informed opinion for savvy IT

DevOps: Building Performance-Ready Hybrid Applications

Today, users expect applications to be fresh, fast, and facile. "Fresh" requires more frequent software updates and refreshed content. "Fast" means that applications have to perform well or users move on to other applications/providers that do. And "facile" translates to easy and user-friendly, including minimizing frustration from underperforming or non-functional applications.

These demanding user expectations place a bigger burden on DevOps teams who must ensure that applications are operational and performance-ready when released. As a result, DevOps teams are integrating performance testing into their development processes.[1] Following are two brief case studies of DevOps teams (from Virgin America and Activision), describing how they used performance testing while developing their software.

Case Study: Activision Beachhead Studio – Call of Duty® Companion App

Activision's Beachhead Studio, the company behind the popular "Call of Duty®" video game, needed to launch a Call of Duty mobile companion app in conjunction with their latest game release, "Call of Duty," Ghosts. For this project, the Beachhead team faced several challenges:

- They were given a strict timeframe for launching the mobile companion app simultaneously with the immensely popular video game.
- There was no room for error on launch day - any glitches in application performance would result in frustrated users and lost goodwill. As Keith Miller, Beachhead Studio's Technology Director, made very clear, "if the game isn't performing well, most players will never come back again."

Solution:

In order to ensure performance of the application on launch day, Activision engaged with Apica to help them design a custom SDLC platform and additional testing agents for iOS, Android, and web browsers. Apica also helped Activision perform regular load tests and performance reviews on the companion app during development.

The Results:

Regular load testing caught performance issues while the apps were being developed, which saved on troubleshooting time and provided crucial insight into many code-based errors and other bugs.

ACTIVISION®

Mission Accomplished:
Apica's SDLC platform augmented the internal QA team's efforts and resources, and was instrumental in saving time so all necessary load tests could be performed quickly and on schedule.

Activision Beachhead successfully launched the application on its target release date while scaling to meet user demands of launch day.

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[1] For performance testing tips that can be used in DevOps processes, see our companion white paper entitled, Hybrid Application Performance Testing.

As a result, application developers were able to correct performance issues during the development cycle, instead of waiting until the test phase or after deploying into production.

Case Study: Virgin America

Virgin America, a travel innovator, needed a new, high performance website to meet (and exceed) customer demand. When designing their new web storefront, Virgin developers wanted to create a faster, smoother, more intuitive, and enjoyable online booking experience.

Virgin America needed a performance testing solution that could ensure performance lived up to their new and improved look, no matter the load.

Apica worked with Virgin throughout the development cycle to pinpoint performance bottlenecks, stress test the booking purchase flow, and provide proactive capacity planning. After working with Apica, they were able to increase overall site performance by as much as 10 times.

> *"[Apica] handled all aspects of testing from start to finish, both helping us pinpoint our greatest bottlenecks and translating test metrics into actionable insight for our development team. Their advice saved us countless hours troubleshooting and helped us avoid any post-launch performance snafus."*
>
> *Tony Vela*
> *IT Manager, Virgin America*

The Final Word

As teams rush new hybrid applications to their customers, performance testing is not the place to cut corners because there is so much at stake. Understanding the performance characteristics of each type of environment are crucial, as well as understanding what happens to the application when it reaches its capacity so outage avoidance measures can be taken preemptively.

Application Developers and Operations both benefit from performance testing throughout the DevOps process. Some of these benefits are listed in the boxes below.

APPLICATION DEVELOPERS: *Build it Right the First Time*	IT OPERATIONS: *Make the Right Operational Decisions*
• Testing for performance and scale throughout the development process ensures that the application is built performance-ready for expected loads. • Building performance-ready applications is easier, more cost effective and more efficient than reworking a poorly-performing application after the fact. • Developers can gain insight into coding techniques that affect performance.	• Better insight into capacity and load relationships enables IT staff to respond proactively to increasing loads. • A better understanding of specific environmental considerations helps operations staff circumvent potential bottlenecks. • Understanding what happens when application capacities are reached, enables IT staffs to plan responses and avoid performance slowdowns.

Today, hybrid application managers don't just want to know that there's a problem and where to look, more importantly they want to fix the problem quickly. Hybrid application performance testing is a fundamental way to minimize the risk of unpredictable and costly behavior in live production environments.

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About Ptak Associates LLC
Our analysts cover a breadth of areas that are ideal to bring you the "Big picture" on new technology trends across the industry. Whether it's Cloud computing, Mobile (BYOD), the Internet of Things, DevOps, Big Data, IT Operational Analytics, Workload Optimized systems or other new trends, Ptak Associates analysts cover these trends with a unique perspective that is both deep and broad.

Our clients include both industry leaders and dynamic newcomers. We help IT organizations understand and prioritize their needs within the context of present and near-future IT trends, enabling them to use IT technology effectively in solving business problems. We help technology vendors refine their strategies, and provide them with both market insight and deliverables that communicate the business values of their products and services. We provide all clients with an understanding of how their competitors are playing in their market space, and deliver actionable recommendations.

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