



Accelerated product release and tripled load bearing capability for a leading Open Source Solution provider

Business Impact

- ▶ Trusted partner for QA and Testing and managed 4 product releases for the client testing 100 builds, reporting 400 Priority bugs alone besides others
- ▶ Independent self-managing testing teams allowing the client to focus on its core development efforts
- ▶ Test Automation cut down testing time by 50% and thus reduced total cost of testing for the client.
- ▶ Performance tuning scaled up the application by almost 350%
- ▶ Recommendations given for Hardware benchmarking helped make decisions with respect to database/server design and investments
- ▶ Accelerated time to market
- ▶ Tripled load bearing capacity

Perspective

Open-source software is becoming pervasive across many IT markets. It is also creating new rules and twists to the challenges that IT organizations face to optimize technology investments. As size and scope of the open source community expands, open source players will find it difficult to incorporate this model in to their mainstream IT Solutions. It is predicted that during the next five years, open-source software products will directly compete with commercial products to displace license revenue from traditional markets, while expanding the overall market through inclusion of small and midsize business customers and emerging service organizations

Such an expansion results in increased user base, which demands for their applications/products to be stable functionally and enjoy improved performance. Mounting pressure of faster time to market as against the traditional slow paced software development adds to the tension.

Our client is the creator of the world's largest Open Source software development web site. Their open source technology sites are an effective and powerful medium to reach millions of highly qualified technology buyers and influencers. Time to market was absolute essence for them, delivering error free software to their client.

The Company

The client is the online media and e-commerce leader in community-driven open source innovation. With a network of web sties serving more than 33 million unique visitors each month, they act as a central clearinghouse for open source projects. They believe using the Open Source business model to reduce costs mostly in coding and testing, lowering cost of the overall solution.

Business Challenge

- ▶ With a base of 87,000 projects and over 900,000 registered users, application downtime is an excruciating situation

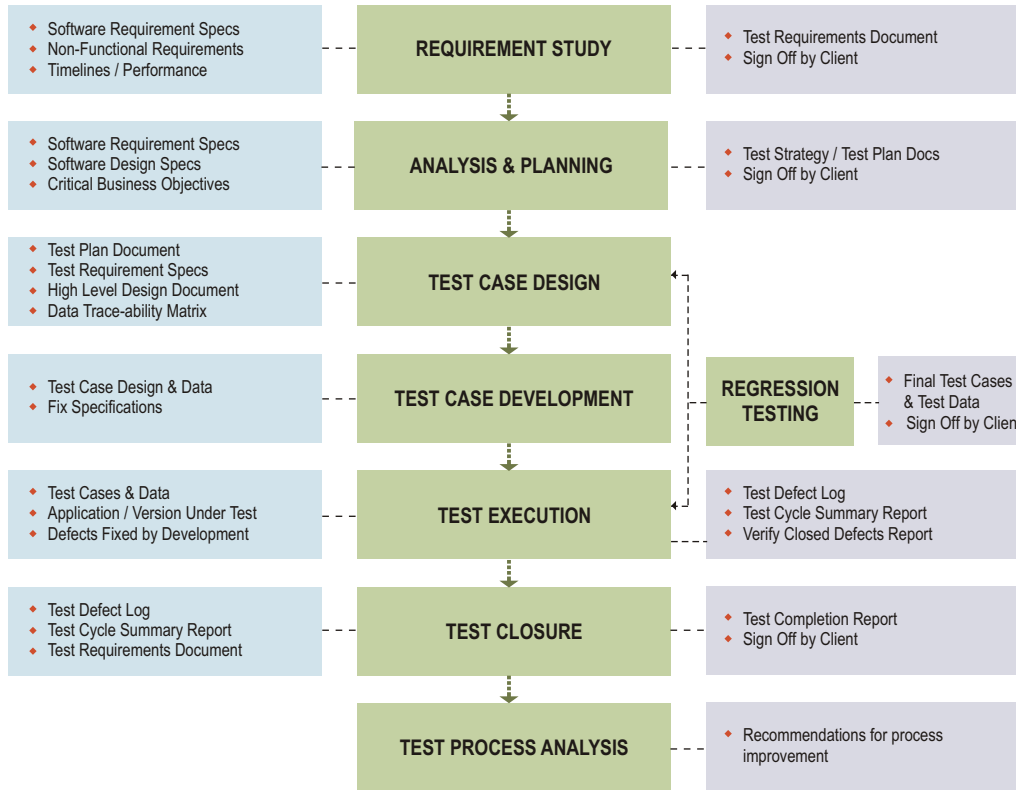
- ▶ Being in the open source community they are forced to manage the expectation of faster delivery cycles yet uncompromising on quality, against traditional software developers
- ▶ Lack of testing and technology expertise Inhouse forced them to look at a strategic partner who could plan and test the full functionality of the product across various platforms and databases & performance evaluation of the application as well

CSS Solutions

- ▶ CSS was engaged for complete pre-release testing of the enterprise application including functional testing and performance engineering
- ▶ Intensive training and I-Meetings with the client helped the testing team at CSS to understand the product. Various sessions to frame strategies, analyze and finalize the testing tools also took place
- ▶ Conference calls were scheduled twice a week, for the testing team to discuss, sort out any issues with the client's technical team. Status of the project was also discussed and the status update was recorded in the Project Management Console module.
- ▶ CSS prepared the test plan, test cases, etc., and a minimum of 9500 Test Cases was executed in a 2 to 3 month's time frame during each release
- ▶ Around 5000 bugs out of which 400 were Priority 1 bugs across 100 builds were posted. The Product was tested on all OS Versions/flavors and browsers mentioned above. Unit, functional, regression, compatibility, confidence testing was done

The following testing approach was adopted for this engagement

End-to-end Testing Lifecycle



"We selected CSS as our QA/Testing Services partner essentially because of their independent focus and experience in providing solutions for software product vendors. We take quality very seriously. With our strong quality focus, we are extremely pleased with CSS's capabilities in the areas of both Performance and Functional Testing. I would also like to add that not a single deadline has been missed till date by our team at CSS. I would highly recommend CSS's services to any company looking for outsourcing software QA and testing"

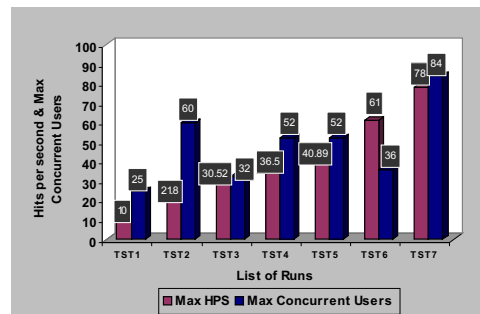
SVP, Product Development

Test Automation

- ▶ While Manual Testing consumed a week to ensure Build Verification, automation helped executing the same set of scenarios in 30 minutes
- ▶ 95% of the application testing was automated (except for one module) using scripts and Quick Test Professional.

30.5 to 78 and scalability of the application by 350%

The following chart compares the performance of the application between "Baseline" and "Performance" runs.



Performance Engineering

- ▶ A series of Baseline and Performance runs were conducted to find the root cause to remove performance degradation
- ▶ Recommendations to improve the scalability and stability of the application were given
- ▶ Hardware benchmarking tests were performed to find the scalability of the application with respect to availability of CPU and Memory. This also helped to pre-empt investments in additional hardware
- ▶ All these resulted in increased in HPS from