

Case Study

TEAM EXTENSION



CLIENT PROFILE

Company:
Warrior*

Industry:
Cloud Services / Content Management

Specialties:
Productivity Solutions for Enterprises

QASource Solutions:
Team Extension and Test Automation

Efficiencies, Expertise, and Infrastructure for Your Existing Teams

QASource provides increased test coverage and decreased costs for a SaaS client via its Team Extension solution with Test Automation

About the Client:

Warrior* is one of the leading cloud service providers, has more than 14 million users, serves more than 140 thousand businesses, and more than 14,000 developers are using its APIs. Warrior provides a dynamic content management solution with collaboration features, content search, file sync, and mobile access.

QASource started with Warrior in 2007 with a 3-member QA team which gradually grew to 12-member team including a dedicated Test Automation team to automate the regression cycles.

The Goal:

Warrior is an emerging technology company on a fast company growth trajectory. Their product has a variety of features used by millions of users 24x7. Warrior expects to add more features to ensure growth and competitive advantage. Customers use these features via a variety of configurations including different web browsers (e.g. Chrome, Firefox, IE10/9/8/7/6), 32-bit and 64-bit desktops (Windows and Mac), WebDav, smart-phones (iOS, Android, Windows), and tablets (iPad, Android). Warrior also targets super-short development-to-production release cycles with a goal to push multiple new features every week into the production environment.

Every week, the QA team must certify multiple new features before they are delivered to the production environment in addition to ensuring that all legacy features continue to work, meeting the highest-quality standards. Additionally, there was no documentation available for the QA team.

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* To maintain our client's privacy, we are using the code name "Warrior".

TECHNICAL LANDSCAPE

- **Development Platform:**

- PHP
- Proprietary database

- **Tools**

- TCMS
- FogBugz
- JIRA
- Confluence
- VMs

Solutions:

» Team Extension:

Through the Team Extension solution, Warrior has access to dedicated teams, ramp up of resources, test labs, and tools.

- 1. Dedicated Team** – QASource has provided a dedicated QA team to compliment Warrior's existing development and product delivery team. Warrior started with 1 QA Lead and 2 QA Engineers. The dedicated team has grown to 12 people in the last 5 years, thus forming an experienced, well-balanced team with a variety of skill sets necessary for testing Warrior's product over time.
- 2. Lab and Tool Accessibility** – Warrior has tested on tons of different configurations using QASource's test labs, including mobile labs. Additionally, QASource has provided TCMS, an automated home-grown test-case management system providing minute-by-minute status updates on the progress of test execution available 24x7 over a secured network.
- 3. Resource Ramp-up** – The Team Extension solution provides flexible ramp-up and ramp-down capabilities. Warrior has used this flexibility to add additional resources during major releases or when expertise in a particular domain was needed.

» Test Automation:

As features have continued to grow, Warrior needed automation to keep up with its fast release cycles. QASource built a Scala,Php-unit architecture to build up the automation framework that support the release cycles amongst various test environments, e.g a QA to Staging to Sanity to Production environment. Whenever a code change occurs, the QASource Automation Suite runs to verify and analyze the application. The automation suite of 2000 test cases runs daily and accomplishes the work of 16 engineers.

CHALLENGES

- Fast company growth trajectory
- Super-short release cycles
- Variety of feature, always adding more
- Features accessed on variety of configurations
- No documentation

Approach:

For all Team Extension engagements, QASource follows a strict set of principles and processes that ensure success.

» True Partnership:

QASource and Warrior have worked together to continually strengthen the QA processes and delivered excellent quality in the 5 years that the two companies have been partnering. QASource currently coordinates with many Warrior distributed teams across the United States and Argentina and has built great relationships with each of those teams to ensure an integrated QA effort.

» Ownership:

Internally, QASource engineers are held responsible and measured based on the success of projects and client relationships. This responsibility and ownership creates a unique sense of participation.

Example

Because Warrior did not have any formal documentation, QASource learned the product through hands-on use. Today, QASource continuously increases product knowledge and strives to “know the product better than developers”.

» Effective Communication and Reporting:

QASource communicates to Warrior through a variety of channels, using multiple report formats such as pass/fail reports for features and go/no-go reports for builds. QASource sends daily status reports, weekly analysis reports, and quarterly goals so Warrior is continually appraised of the status of all timelines, deliverables, and strategy on every step of the way.

» All-Inclusive Infrastructure:

QASource utilizes its in-house IT team and Development team to ensure the set-up, integration, security, and privacy of Warrior’s product. Additionally, as they fully support the QA efforts, they have created quality infrastructure and tools, including the test case management system now used by Warrior.

» Strategic Planning & Analysis:

Before starting work on any new task (either big or small), QASource plans the strategy, timeline, and deliverables, often in coordination with Warrior. After the task's completion, the QA Lead analyzes the results and extracts the lessons learned. The QA lead then communicates these lessons, both vertically and horizontally.

Example

When a new build arrives for a QA iteration with a goal to test in 2 days, the QA team first plans quickly, establishes the quality benchmarks (e.g. no Blocker, Critical, or Major issues should be left open), then quickly creates test cases or selects an appropriate Test Plan. After the execution is complete, the team analyzes the Pass/Fail matrix plus the count of open defects which is reported every Friday in a “retrospection” email.

RESULTS

QASource’s approach and Team Extension solution provided Warrior with dedicated engineers, a multi-million-dollar QA infrastructure, resource flexibility, and automation resulting in efficiencies and cost savings.

- Higher quality features across configurations (found 4,240 critical defects in 2012)
- Higher efficiencies in test case distribution, execution, tracking, and maintenance
- Fewer QA bottleneck during releases
- No cost to obtain hard-to-find skillsets
- Faster test cycles from automation (2000 test cases executed daily, in 5 hours)
- Increased number of features going to production
- Cost savings in product training
- Cost savings in HR resources management
- No cost for retraining
- More coordination between distributed teams
- Continuous QA improvements
- Established knowledge base for future releases
- Customers continue to grow