



CASE STUDY

Website Services with Account Management API Testing

The company needed to accelerate the development of high quality APIs to offer its interactive services over the web.



The Client

The client, a publicly-held company with a half-billion dollar market cap, had an aggressive initiative to increase revenues by making their core product, quality interactive services, available on the web through APIs.

The client began developing a centralized customer account management (CAM) system that provides a REST web services interface to their various web properties. This common API is used by internal and affiliate development teams and needed a high degree of reliability, as well as accurate conformance to the specifications of the API.

The Issue

When the client first met with QualityLogic engineers, getting the API released was critical as this would significantly boost revenue outside of their traditional revenue generation. The tasks assigned to their internal development team were: “get this working, get this released.”

The client’s approach to the development process was not defined or executed well. The lack of documentation, nonexistent test specifications and chaotic environment reflected a lack of experience in API development and release.

The Solution

QualityLogic assembled a team of engineers to work directly with the client’s developers. They immediately began a careful review of the CAM API specification and documentation the client had already created.

While it was important to review the specifications and documentation the client had created, it was just as important for QualityLogic engineers to meet the time lines and goals for the CAM API the client had originally envisioned.

To ensure functionality, QualityLogic developed a formal test specification documenting the characteristics of a set of test customers and over 300 test cases to validate the behavior of the API.

Using the open source version of SoapUI, QualityLogic coded a set of fully automated test cases consisting of over 2000 API calls and 2500 specific test assertions to verify correct API behavior.

QualityLogic also developed a set of load testing scenarios using SoapUI, deploying the load testing environment in the Amazon EC2 cloud. Over the course of the project, QualityLogic ran a series of load, scalability and long term endurance tests on the CAM API.

The Outcome

QualityLogic reported almost 200 bugs and the specification grew from 88 to 145 pages as a direct result of QualityLogic's feedback. By the end of the project, the CAM API passed every functional test case and the API met all of the specifications. Further, QualityLogic's analysis of the load testing results identified issues that helped tune the performance so that the target throughput and response times goals could be met.

The client gained more visibility and documentation through QualityLogic's involvement than when they performed the work internally. The development and testing timeline was significantly reduced and thus the lead time to release was shortened. The client was able to provide an excellent quality API product that was easily accessed and used by third parties to write programs.

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For More Information

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