

CASE STUDY

Testing Services for School Visitor Management Software

About the Company

Company is a leader that provides visitor management technology to over 12,000 K-12 schools and community facilities such as YMCAs. Their technology solution performs an instant sex offender background check against the registered sex offender databases in all 50 states for every visitor.

Business Needs

The company's application aggregated third-party data - a compilation of the latest sex offenders' information from all 50 states in the US. This information would then be made available for visitor management verification by schools and community facilities every day by 5 am CST.

The application needed to be tested for compatibility with various OS, browser and connecting devices used by these schools and community facilities.

Challenges

- ❑ The company's production application was hosted on five different servers requiring testing on all 5 servers to ensure application availability.
- ❑ To verify the screening of latest additions to the offender database, input need be collected, every day, from multiple third-party portals.
- ❑ The entire testing had to be completed by 5 am CST every day to ensure that the application was useable by end-users.
- ❑ Key individuals held the legacy application knowledge and there were no requirements or engineering document.
- ❑ Application's compatibility with various OSs, browsers and large list of connecting devices, i.e. printer, scanner, barcode reader and web cam, etc. to be verified.
- ❑ Complete the execution of 4,000+ regression test cases before and after every production deployment, within a short time frame.

Solution

- ❑ Trigent identified critical features of the application and classified/prioritised them to target for Smoke/High level regression testing.
- ❑ Automated high priority test cases and scheduled to complete the execution before stipulated time, i.e. 5 AM CST.

Technology

- ✓ **Test Management Tool:** MTM (Microsoft Test Manager)
- ✓ TFS to report and track the defects.
- ✓ **Test Automation Tool:** Selenium WebDriver using Java and Telerik Test Studio using c# .net.
- ✓ <http://crossbrowsertesting.com> : Used to test the application with different combination Operating System and Browser.

CASE STUDY

- ❑ Conducted exploratory testing of the application, along with periodic documentation of features/functionality. Within a short period, created 4,000+ plus test cases, prioritised and prepared for a complete regression suite.
- ❑ Exclusive test lab with all the necessary physical devices for compatibly testing to ensure complete coverage in terms of Device/Browser testing.
- ❑ Manually collect information on a daily basis from various third-party portals
- ❑ Complete regression suite was automated using Selenium & Telerik Test Studio test automation tools. Trigent testers performed manual testing for the modules that cannot be automated to ensure adequate coverage.

Benefits

- ❑ Early morning smoke test results helped the customer's support team to fix issues before users encountered them. Users were therefore assured of seamless error-free application, day after day, every day.
- ❑ The regression test suite covered all flows of the application. This increased the stability of the application and early detection of defects. This reduced the overall effort and time spent on bug fixes for the application.
- ❑ The company was able to support a wider variety of devices to help increase their revenue streams.
- ❑ Performing testing on live data collected every day to ensure 100% accuracy to identify the offenders increases the effectiveness of the application's primary requirement.
- ❑ Increased ROI through reduced QA cycle time by automated regression suite. This also ensured guaranteed coverage, and freed up tester's time to perform other focussed testing related to non-automatable tests.