

# Visitor Management Solution adopts Trigent's Integrated Testing to assure Safety & Security of Students



“ *Trigent sets themselves apart with their level of investment and engagement in projects. The team takes responsibility for the completion of assignments and delivers results in full. They are accessible, responsive, and quickly resolve any issues.* ”

## Industry

Education

## Business Value

- Testing on live data resulted in 100% accuracy in identifying offenders
- Seamless error-free application
- Achieved a zero critical bug leakage to production
- Significant reduction in customer complaints
- Improved test coverage with test automation

## About the Client

Schools and educational institutions need to effectively screen and track visitors, to keep unwanted entrants out. Our client provides a Visitor Management Solution for schools across the US that is the gold standard in school safety. It screens for sex offenders, alerts staff of custody violations, and provides districtwide reporting for all visitors. An easy to use system coupled with a database of offenders from across 50 states that are regularly updated, is at the core of their security solution. The constant updates to the software warrant a robust quality check process to ensure zero-errors. Trigent's QA testing solution coupled agile development with validated test automation processes, help them achieve defect-free and superior security system.

## Background

The client's technology protects 32,000 K-12 schools across the US. The software system has helped identify and alert officials to more than 50,000 sex offenders attempting to enter member schools and has issued over 250,000 custody alerts. The advanced system developed by the client has also been credited with the arrests of numerous absconded sex offenders that have crossed state lines.

## Challenge

The web-based visitor management system was developed with outdated

## Technology Stack

- Microsoft Test Management (MTM) for test case management
- TFS to report and track the defects
- Selenium WebDriver using Java and Telerik for test automation
- Test Studio using C# .NET

technologies, without the right process and tools, user guide, and documentation. The application was tested and released by the in-house development team without an independent QA. It had lots of defects and bugs, lacked quality and customer experience.

### Advanced Quality methodology to match the Next-Gen Solution

The success of the client's visitor management system started with a shift from a legacy application to a robust and scalable application. Building on their experience and issues faced, they recognized the need for a well-integrated QA strategy that continuously tested all feature enhancements, product updates, and the database. This ensured quality and security at all times.

## Trigent Solution

### Bespoke QA strategy & implementation by Trigent

To meet the client's unique requirements and highly demanding quality standards, Trigent came up with a well-defined and bespoke QA strategy that was followed during the development and release of the new application, for feature upgrades and new feature rollouts. This was extended to the mobile version of the next-gen application too.

The Trigent team took an 'embedded QA' approach to ensure that there were zero-defect releases. Product grooming meetings were introduced anew, to improve product knowledge and get a better grasp over the customer requirements. The regular meetings between the product management, development, and QA teams resulted in better communication. Trigent's unique approach included fixing bugs within a sprint before the release instead of pushing the bugs to backlogs, lead to bug-free releases.

Jira was leveraged to make bug reporting an ongoing process. Robust low-level test cases and test scenarios were used to cover all the business requirements. Ad-Hoc, exploratory, smoke, and regression tests, among others, were conducted. Business-critical scenarios were identified for new features and upgrades.

The QA strategy also included a custom AI-led test automation approach where the backlog was cleared, and the sprint cycle was automated to bring additional speed for new releases at a reduced cost.

## Client Benefits

### Trigent's QA strategy propels client to the top spot

The client is the Gold Standard when it comes to School Security in the US. Trigent's QA strategy was instrumental in the release of a bug-free web and

desktop application that customers loved using. With defect-free, frequent feature releases, the visitor management system witnessed exponential growth with several new customers switching over to this product. Most importantly, the client was able to differentiate itself by providing a seamless experience for their customers.

Results experienced by the client include:

- Seamless migration of 2,500 live client instances from a legacy system to the next-gen application
- Reaching the Gold Standard for quality and reference for schools across the US
- Better team collaboration with “Embedded QA”
- Faster release of new features due to the creation of 5,000 test cases, and 2,000 regression test scenarios
- Increased customer experience with zero bug leakages in application releases

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