Helping a Software Developer to Verify Their Medical Records Product

Tessolve-Case Study

About the Customer

GraphixAsset are an award-winning, UK based, software and digital solutions provider with expertise in mobile app design and build, front-end user interface development, back-end server integration, database design, API system integration, flash development, web design and build, computer graphics, and 2D & 3D high-end animation.

Background

GraphixAsset developed the eMAR (electronic Medical Administration Record) system specifically for a national charity, providing services for people with learning disabilities throughout England. The application maintains MARs (Medical Administration Records) electronically. A web interface provides admin functions whilst end users access the system from their Android smart phone or tablet. GraphixAsset approached Tessolve to perform comprehensive functional and security testing.

The Challenges

- The requirements were complex
- The overall product is characterised by complex interactions and dependencies
- Time-to-market pressures limited the time to execute functional and security testing
- Healthcare compliances to provide quality software.

Tessolve Technical Solution

Tessolve first defined an overall scope for the testing and a strategy that was agreed with GraphixAsset. From this Tessolve and GraphixAsset defined a Statement of Work for Tessolve to execute the agreed strategy.

- Tessolve exacted features from the specifications and converted them into test cases to ensure each requirement has covered. Tessolve held Q&A sessions with GraphixAsset to resolve any queries as early as possible.
- Tessolve identified the tooling resources such as an Android tablet with supported OS Version, security test tools, supported web browsers and an API testing tool.

- For the testing, the software was divided into three major components: Android, Web and API.
    - Tessolve prepared testing artefacts separately to track testing progress.
    - Tessolve performed Functional Testing of the Android application, Web application and APIs
    - Tessolve performed Security Testing of the Android application and Web application
    - Tessolve prepared comprehensive metrics on coverage, test status, bug status, etc. to track the progress
    - Tessolve performed Usability Testing and provided suggestions to improve the user experience

The Delivery Model

Tessolve executed the project using a phased delivery plan and an offshore model. An offshore project manager performed the planning, reporting, risk management and resource allocation providing GraphixAsset with a single point of contact.

The project was executed in three phases with deliverables reviewed at the end of each phase:

- Phase 1: module testing of the software with 40% functional and security test plan coverage
- Phase 2: integration testing of the modules with 70% functional and security test plan coverage.
- Phase 3: system testing of the software with 100% functional & security test plan coverage.

Results

Within one and half months, Tessolve was able to complete the project and achieve 100% functional and security test plan coverage.

Customer Benefits

- The blended Tessolve execution model allowed GraphixAsset to meet strict budgetary constraints.
- A phased delivery model based on Tessolve's established verification process allowed GraphixAsset to track milestone delivery for each phase and achieve signoff in a methodical manner.
- 100% functional & security test plan coverage closure within one and half months enabled GraphixAsset to hit aggressive development schedules with confidence.
- Project risk was managed by analysis early in the lifecycle.
- A complete functional testing solution was provided for the Android application, Web application and APIs.
- A complete security testing solution was provided for the Android application and Web application.