TRIGENT
OVERCOMING LIMITS

Enable a seamless and superior digital healthcare experience across applications

Summary

A continuous Quality Assurance process helps a leading Healthcare Solution provider integrate diverse services into a single seamless experience. Users get accurate, personalized, care & wellness information, driven by data insights.

People
Doctors, medical groups, and professionals by speciality

Places
Hospitals, clinics, labs, imaging centers

Services & Treatments
Providers for office visits, tests, treatments, surgeries

Care by Condition
Providers for common concerns

Cost Estimates
Treatment for common conditions

About the Client

Powered by its Next-Gen consumer digital health platform, the client enables users to access best available care options available as per their employers' insurance cover. Users get guided well-being programs and coaching apps for health goals, all in a single web or mobile application.

The HIPAA-compliant platform encourages consumers to take control of their health. It gives consumers the support and tools they need to manage their health and well-being better. Users are guided to the best-suited health care provider in their vicinity. It enables customers to select the most appropriate insurance plan to cover personal and family needs. Their learning and coaching apps keep motivation levels high among users through loyalty and rewards initiatives.

Business Need

Healthcare is a complex domain. The client's focus is to make healthcare choices simple and accessible for the consumer, sustain engagement with personalized recommendations, rewards, coaching, tools, community, and content.

The client's strategy was to launch a new platform that provided a unified view on the Web and on the Mobile. It combined 4 separate products, each designed for specific healthcare activity into an integrated, personalized experience across all products. This new platform allowed consumers to:

- Find the right type of care with appropriate decision-support tools
- Take ownership of their health and well being
- Achieve specific well being related objectives (weight loss, ect.)
- Stay motivated with rewards and aim higher

Sustaining the quality of experience and personalized data, while integrating the four products into one experience was an essential requirement. **Our challenge was to implement a continuous quality process** for the client that ensured quality within the individual products and also ensure accuracy and quality within the unified experience. Any change or update in one, should trigger checks in all related components of the combined product.
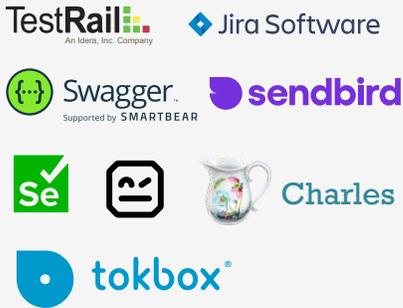
Trigent Solution

Setup a purpose-built QA ODC with domain and functional experts, aligned to the 4 service offerings and with the unified platform. This approach allowed for testers to be vertically

www.trigent.com | +1.508.779.6743

All trademarks, marked and unmarked, are the property of their respective owners.

Trigent Software Inc.
2 Willow Street, Suite #201, Southborough, MA 01745

Technology Stack

Testing tools employed

aligned yet be functionally integrated. It also enabled seamless interactions across product teams & geographic locations.

The client team partnered with Trigent for ensuring continuous quality assurance. Trigent's domain experience allowed the combined team to devise a Testing Strategy that ensured the integrity of the individual products and across the products to realize the unified experience.

Trigent designed a Continuous End-to-end Testing approach for each individual product and the integrated service experience. Quality aspects that the service covered included validating:

- The customer experience
- Omni channel experiences
- Compliance to WCAG21
- Performance bottlenecks

Defect Escape Ratio (DER) and Test Efficiency (% Coverage) were established as quantitative measures of the project Quality.

Testing Approach & Automation

The following steps were taken to simplify the QA effort for each individual product and across the integrated service experience:

- Modularized test suites, to provide flexibility in determining the test runs based on the affected modules/feature enhancements
- Used test optimization techniques like All-Pairs/Orthogonal array for compatibility testing across mobile devices and browsers
- Identified and automated tests to reduce test effort and improve coverage
- Adopted RTM for traceability right from requirements to tests to defects
- Documented test cases in Gherkin style to help the automation scripting using Robot framework faster

People & Process

- **Fluid flow of information:** The custom ODC setup allowed for resources to be mapped to specific services, yet function as an integrated unit across the portfolio and across locations. It allowed for smooth flow of information, which was a key factor in increased release velocity.

- **Relevant domain experience** is key to anticipating potential failures and the design of effective test cases. Equally important is the ability to define the least number of test cases for maximum test coverage. Domain expertise was easily accessible across all functions in the ODC.

- **Resource management:** Through the Dev cycle, the skills requirement across different service areas varied. The composite structure of the Trigent team allowed for functional resources to be deployed where needed, with the option to scale up/down to meet surge in demand ahead of critical releases.

www.trigent.com | +1.508.779.6743

All trademarks, marked and unmarked, are the property of their respective owners.

Trigent Software Inc.

2 Willow Street, Suite #201, Southborough, MA 01745

> Trigent's QAT service has ensured that we are always at the forefront of quality and performance. Their continuous support has helped our products gain widespread appreciation and acceptance, ensuring steady growth for our healthcare offerings.

Client UAT Automation Solution

Some elements of the clients' services employed repeated testing tasks that were laborious, time consuming and error prone. Trigent designed and automated a testing solution framework that **reduced the test cycle time from 8+ weeks to under 3 days.**
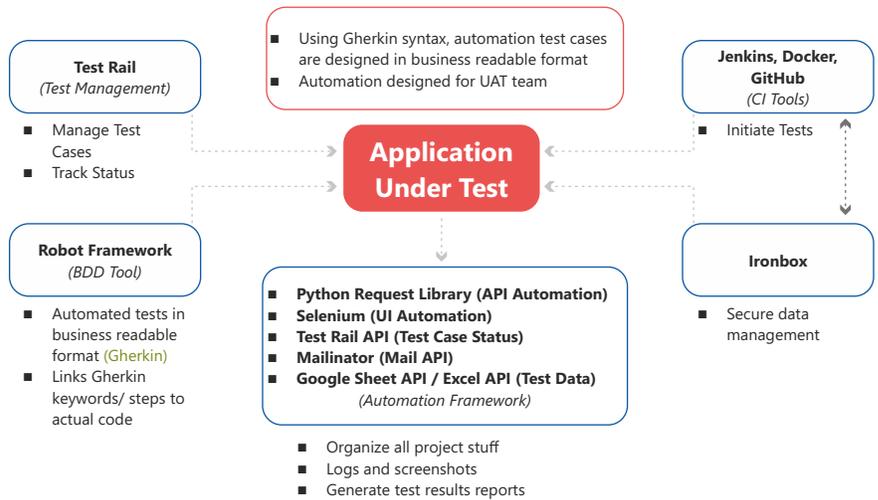
Trigent's test automation framework dramatically improved QA efficiency. This resulted in 91% of production test cases being automated. Additionally, production test cases were reduced by 44% from 37 to 21 automated test cases.

Client Benefits

The purpose-built QA ODC that mapped directly to the client's internal structure and processes enabled them to maintain a very tight control of the quality process across all stages of the product development lifecycle. Tracking the DER metric ensured that teams worked to meet and exceed market benchmarks for quality, rather than relative internal measures.
The direct market impact included:

- Significant reduction in overall checkout time - **From 8+ weeks to <3 days**
- Time-To-Market for new features **down by 48%** driven by Test Automation
- **Defect-Escape-Ratio (DER) of 0.2** which is better than the industry threshold
- Team size **reduced from 40 to 22**, resulting in significant savings
- **22M registered users** across 200K+ employers and health insurers
- **App Store rank of 4.8** that reflects the quality of Customer Experience

About Trigent

Trigent is an early pioneer in IT outsourcing and offshore software development business. We enable organizations to adopt digital processes and customer engagement models to achieve outstanding results and end-user experience. We help clients achieve this through enterprise-wide digital transformation, modernization, and optimization of their IT environment. Our decades of experience, deep domain knowledge, and technology expertise delivers transformational solutions to ISVs, enterprises, and SMBs.

We offer end to end consulting services, design, development and managed services across Infrastructure, Cloud, Mobility, BI, Analytics, Product Engineering, QA & Testing, IoT, Big Data, and Artificial Intelligence.

www.trigent.com | +1.508.779.6743
All trademarks, marked and unmarked, are the property of their respective owners.

Trigent Software Inc.
2 Willow Street, Suite #201, Southborough, MA 01745