

Enabling
Testing
Transformation *for a*
Retail SaaS Provider



About Customer

Our customer is a leading retail Software-as-a-Service (SaaS) provider empowering enterprise retailers around the world with leading, science-based solutions for pricing, promotions, markdowns and competitive insights. Its SaaS offering, powered by robust analytics and advanced AI models, equips businesses with clarity and confidence to make optimal pricing decisions. However, with the constant evolution of the market state, the retailers had begun to expect more from the SaaS solution.

Customer's Challenge

Consequently, the retail SaaS provider wanted to enhance and introduce new capabilities in its existing web application to match the market trends and customer demands. However, due to very high data volume, customer specific data interfaces, diverse data formats, and inefficient legacy code the application was prone to high field bug leakage. The organization had a growing manual test library of over 10,000 test cases and no automation coverage to speed up the test cycle. Many of these test cases involved calculations that proved to be error-prone when validated manually. This led to suboptimal release quality and resulted in frequent business disruptions for retail clients.

Moreover, the retail SaaS provider had a limited development capacity, who were mostly engrossed in enabling the release of frequent patches and minor releases to counter shortcomings of previous software version. Towards this, the team faced long release delays due to the sluggish manual regression testing cycles. This led to a large backlog of features and bug fixes committed to retail clients, impacting the SLAs and performance benchmarks set by the retail SaaS provider. All these factors led to dwindling customers' confidence in the SaaS solution.

Confronted with such a precarious situation, the retail SaaS provider entrusted AgreeYa to transform its quality assurance and clear the existing product development backlog by expanding the development capacity. The organization wanted to deliver optimum release quality and contain field bug leakage by testing the app thoroughly, both for functionality and performance, under different data conditions and configurations without impacting the release timelines.

Our Solution

For more than two decades, AgreeYa has been helping organizations to ensure optimum release quality and achieve unprecedented business outcomes with our testing solutions, services, and product. Upon due diligence, our team suggested a solution roadmap for successful product development and testing transformation to meet the retail SaaS provider's desired business objectives.

The Product Development Solution

Upon engagement, our first team of experts implemented Microsoft Team Foundation System to help streamline the whole release management process. We assembled an extended team of talented C#/.Net software developers to augment the onsite team. Additionally, we established new development and communication processes for ensuring optimal collaboration and productivity. With these changes, the retail SaaS provider was able to fix all critical and high severity defects and clear the bug-fixing backlog.

As a next step, our experts worked towards enhancing the existing features and capabilities of the retail price optimization app. We worked in close association with the inhouse team to build new features for all the product modules including Pricing, Planning, and Markdown. We modernized Planning module by upgrading the tech stack and revamping the UI. Additionally, our experts developed the new Promotion module using latest tech stack and RESTful Web Services.

The Testing Transformation Solution

Almost parallelly our second team of experts were busy in analyzing the retail SaaS provider's existing testing challenges. After an in-depth assessment and ideation, our experts suggested BeatBlip to the customer. AgreeYa's BeatBlip is a codeless continuous test automation solution that has been enabling organizations to tackle their stiffest testing challenges and ensure optimum release quality. The organization also opted to use our Test Automation as a Service (TaaS) offering to further maximize the gains of BeatBlip. With BeatBlip and AgreeYa's TaaS the customer was able to:

Automate all Smoke Tests, using BeatBlip's codeless automation, to ensure stable builds to QA.

Automate all User Acceptance Tests (UAT), leveraging end-to-end automation capabilities of BeatBlip, to win back customer confidence in new releases.

Automate all Localization Tests to help test the functionality across multiple languages, time zones, and currencies using same set of scripts.

Develop data-driven tests to validate the same functionality under different data configurations and environment settings.

Automate various test scenarios involving SQL Server, MongoDB, and Teradata by leveraging BeatBlip's multiple database connectors.

Define performance and quality processes, benchmarks, and metrics.

Build re-usable plugins to automate various test pre-conditions and highly repetitive batch of test steps.

Integrate BeatBlip test execution with TFS based build and deployment process.

Integrate auto bug logging and automated email-based test reports.

Additionally, AgreeYa helped deploy multiple BeatBlip Agents for parallel and remote test execution. We conducted multiple training sessions to train the customer's resources on BeatBlip test execution.

Benefits Delivered

AgreeYa's leading edge solutions allowed the retail SaaS provider to overcome its software development and testing roadblocks. It enabled the organization to reinstate its retail price optimization application as a market-leading, feature-rich, and stable product. With its successful testing transformation initiative, the retail SaaS provider was able to improve reputation among the existing retail clients and release software upgrades confidently. Some key benefits delivered by BeatBlip and AgreeYa's TaaS include:

40% reduction in test cycle time with BeatBlip's ability to run automated tests in parallel across multiple QA and Staging environments.

36% increase in user satisfaction ratings and 53% reduction in issues reported by clients.

70% test automation coverage achieved and continuing to expand the coverage by automating remaining regression and new feature tests.

63% reduction in regression cycles enabling faster release of new features and functionality.

Delivered end-to-end automation of DevOps cycle.

Enabled end-to-end automation of tests involving Web UI, REST API, and Business Processes using a single tool.

Allowed the retail SaaS giant to seal new deals and increase sales.

Technology Stack

ASP.NET 3.0, MVC 3 Framework, Knockout JS, SQL Server, C#, IIS, Entity Framework, Grails, REST API, Postgres, MongoDB, Informatica, and Teradata

Testimonial

“ AgreeYa helped us move our testing process to the next level and release confidently. The team provided solid services allowing us to resurrect the app and even grow it into new areas. They definitely are a powerhouse provider of testing solutions. ”

Lead QA, Retail Software as a Service Provider

About AgreeYa

AgreeYa Solutions is a leading global provider of software, solutions and services to small, medium and global Fortune 100 organizations. Founded in 1999 and headquartered in Folsom, Calif., AgreeYa has over 2,000 professionals helping clients across the U.S., India, EMEA and Mexico. Leveraging a technology-enabled, consultative approach and diverse talent, AgreeYa offers modern workplace, smart analytics, intelligent automation, AI/ML, cloud transformation, mobility and talent management solutions to deliver digital transformation to its clients. AgreeYa has received considerable recognition including certifications like Microsoft Gold Partner and Cloud Solutions Provider; AICPA SOC 2 Type 2, SEI CMMI and ISO 9001:2015; and awards including “Dream Company to Work For” and “Best Employer Brand.” Discover more at www.agreeya.com.



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