

Automation and Seamless Brand Integration Improve CX and Save Costs for Major Restaurant Chain



Challenges

Acquisition of a new brand required integration of multiple legacy apps across a diverse, complex landscape.

Constant untested changes introduced post-production risked revenue loss through disrupted customer experience.



Solutions

Collaborated with Client to identify and prioritize test cases for automation feasibility.

Leveraged UFT automation software to create a framework for functional and regression testing across multiple brands.



Results

Reduced testing time and costs by ~40% while significantly improving coverage and quality.

Automated change management ensured ongoing fast fixes with no code change.



Client overview

The Client is a well-known restaurant chain with more than 1500 locations in the US and Canada, offering services that include online food ordering, catering, reservations, group dining and more. Recently the company had invested \$780 million to acquire a new restaurant brand, boosting their number of brands to 9 and growing their workforce to over 150,000.

In the furiously competitive and increasingly digital restaurant business, impeccable customer experience is essential, especially in the online reservation and ordering functions. Transactions must be fast and flawless to a customer—no hiccups or hold-ups.

Recipe for disaster: Keeping hungry customers waiting

The new acquisition introduced new complications to the Client's diverse, multi-brand technological landscape. Constant changes and updates post-production were the norm. Some were small or temporary, and others came from third-party API calls with applications such as OpenTable for reservations, AudioEye for accessibility and various credit card processing apps. Often these changes did not go through a testing or quality assurance process. Every change, large or small, carried the potential to disrupt a customer transaction, risking direct revenue loss. The Client decided Quality Assurance was needed.

The Client wanted a flexible, automated framework capable of managing such changes with minimal code change. This would need to be integrated with the new brand's legacy and third-party systems and applications, which in turn needed to be integrated with all the other brands' systems. The goal was a flawless customer experience across all brands.

Tackling the need for speed with cross-team collaboration

Qualitest was well-positioned to step in from Day One. We had already enjoyed a long, productive relationship with the Client as their Managed Testing Services provider and trusted partner, dating back to when they had only four brands. As their brand family and footprint expanded, our services evolved and grew alongside, bringing successful outcomes that steadily increased Client confidence and trust.

For this project, to validate and deliver fast results we needed to execute and monitor predefined scripts across all brands, so any discrepancy could be reported to support teams for a quick fix and revalidation. Our approach involved:

- analysis of test cases for automation feasibility
- optimization of the test cases in collaboration with Client
- leveraging UFT automation software for seamless functional, regression and service testing without monitoring the system in intervals.

Because of the variety of brands, the Client's legacy software was diverse. Initially the automation scripts were executed in virtual machines (VMs) provided by the Client; however, our team encountered page-loading and network latency issues in executing those scripts across various brands. Also, resources were idle during the course of script execution. Our experts suggested a POM (Page Object Model) framework with AI features, as they had extensive experience in leveraging the same across various accounts.



To optimize application performance, the Client provided a new hardware asset, Tunnel, which was installed in the Qualitest network and directly connected to the Client's systems. This contributed greatly to increased productivity in script development, speedy script execution and easier maintenance.

The functions we designed were highly reusable across many scripts and further classified as either generic or Client brand-specific. In combination, these functions helped reduce script development time across web and mobile applications with minimal maintenance effort for any seasonal changes introduced across all brands.

Our process followed two phases:

Phase 1 - Identifying the right framework, tools and technology

Qualitest engineers developed an automation framework that supported desktop & web mobile testing across all brands, controllable at a global level. To start, we suggested the following resources:

- Unified Function Testing (UFT)
- Application Lifecycle Management (ALM) tools
- Akamai (in Production)

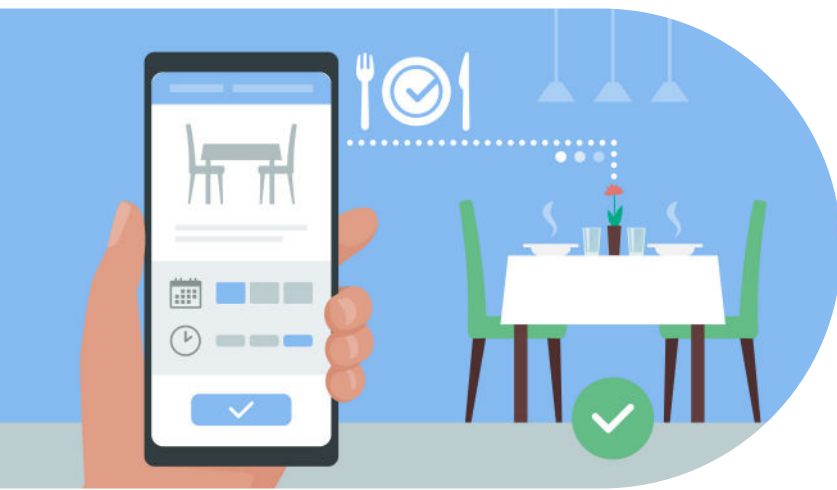
Phase 2 - Steady state project support

In this phase, Qualitest brought in sync technique and removed static wait from scripts. We identified a common object that could be used across all brands and introduced screen shots on failed status.

The five main steps our team took were:

1. **Test Planning:** Identified manual test scenarios to be developed by our manual team and designed reusable functions that could be leveraged across all brands.
2. **Test Scripting:** Created and enhanced Microsoft Visual Basic (VB) scripts as per the identified business functions, as well as parameters with different values to run with multiple brands
3. **Execution and Analysis:** Scheduled test sets on ALM, which automatically triggered script execution on available VMs.
4. **Re-executions:** Implemented auto-retry to rerun the script on failure, to avoid manual execution of scripts.
5. **Test Reporting:** Along with the detailed reports on test execution ALM provides, which support different types of charts to help in analysis, we developed customized Power BI reports for more detailed, in-depth insights.

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Key benefits

This project marked another fruitful collaboration between Qualitest and the Client. To date Qualitest has optimized around 140 test cases, which are up and running in automated fashion for the Client's day-to-day smoke testing.

We were also able to achieve noteworthy business and quality benefits for the Client:

- Time and costs enjoyed a savings of around 40% during the testing effort.
- Both test coverage and testing quality were significantly increased.
- Optimizing regression testing cut execution time by around 40%--savings that will be repeated with future regression testing, as will improved coverage.

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