

Better POS Reliability with Dynamics 365

Harnessing the power of Dynamics 365 for Finance and Operations to deliver a more reliable and streamlined transaction experience for resellers and customers



Key outcomes

- Go-live goals met with minimal interruption to the business
- Maintainable manual and automated tests that are re-usable for regular updates
- On average \$15,000 saved per month with test automation
- On average 2-4 weeks of SME testing time saved per month

Technologies

- Dynamics 365 for Finance and Operations
- mPOS
- BizTalk

Delivered

- Functional Testing
- Test Automation
- Performance Testing
- Test Management
- Staff Augmentation

Tools

- Atlassian Jira
- Apache Jmeter
- Selenium

The challenge

Internet downtime can be significant challenge for retailers, particularly when processing transactions. This is an ever-present concern in rural or remote areas, where unreliable connectivity frequently results in downtime for point-of-sale (POS) systems.

Modern solutions such as Dynamics 365 can create and run local POS servers. In the case of Internet downtime, this capability allows retailers to connect to a local server to continue trading.

This wholesaler was using a POS and retail management solution that did not have local server functionality and was also reaching end-of-life.

By adopting a newer solution like Dynamics 365, they had the opportunity to access new functionality and deliver better uptime for their retail stores.

When implementing Dynamics 365, the wholesaler kept their existing financial management solution using a BizTalk interface to transfer information between the Dynamics 365 financial modules to that system.





The solution

Dissatisfied with their existing testing provider working on the Dynamics 365 implementation, the wholesaler asked Planit to conduct a review of the testing process and to provide suggestions for improvement. As a result of this review, Planit was selected to become their new quality assurance partner and to implement the changes defined in the review.

One reason for Planit's selection was our approach for working with their subject matter experts (SME). This included eliciting the information needed so that we could execute most of the testing, but also coaching the SMEs in how to test, and what was expected of them when doing it. This close collaboration was key to filling in gaps in documentation and enabling us to learn about the wholesaler's processes.

We also liaised with the system integrator on behalf of the SMEs. In most cases, we would pre-test modifications and configuration changes prior to updating test cases and then assist the SMEs with their testing. This helped to reduce the SME time required to work through integration issues and provided faster turnaround time for the integrator when defects were discovered.

SME involvement and participation were critical goals for the wholesaler, not just to leverage their knowledge, but also to gain their buy in to the solution. Therefore, we did our utmost to make the SME experience as productive as possible.

We worked out the technical bumps in new releases, provided documentation for SMEs to follow, and provided training on the product where needed. This helped the SMEs to use their time efficiently while still meeting the business goals for the project. As with most projects, time was constrained and the staged go-lives had to occur at specific times of the year when risk of disruption to the business was lower. If a go-live date was missed, the release would move at least six months and, in some cases, an entire year.

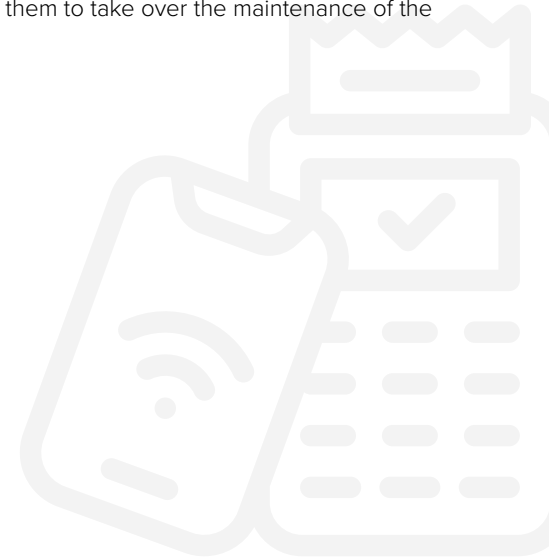
Because of the time constraints, a risk-based approach was used for the testing. This concentrated the testing on the changes made specifically for the wholesaler rather than broadly testing the Dynamics 365 product itself. This focus helped to reduce the time required for testing and helped to drive out the highest risks as early as possible.

Another goal for testing was to build a repository of test cases that could be reused for manual regression testing of later releases and for future test automation. Because Dynamics 365 releases must be installed at a regular cadence, having an established regression suite is imperative to reduce the risk of these releases.

We documented all the test cases to a level where they could be run by anyone with a good understanding of the business processes. In addition to being used for the manual testing of the quarterly releases and monthly minor releases, these test cases also became the basis for the automated regression test suite that we implemented.

In addition to the functional testing and test automation, we also provided data migration and performance testing. We sought to fill all the testing needs for this project, both in the short-term to facilitate the go-live, but also the long term by building maintainable test cases with full traceability back to the requirements.

We implemented a test automation framework to ensure the automation scripts were standardised and easily maintained for the life of the product. To further support their testing, we also conducted training sessions for new testers employed by the wholesaler to allow them to take over the maintenance of the test automation.



Outcome

With Planit's support, the wholesaler was able to meet their go-live goals with minimal interruption to the business. We were able to work with the SMEs and facilitate the training of the many users of the system by providing working software, data, and environments as needed.

We provided reusable and maintainable manual and automated tests that the wholesaler uses for regular updates of Dynamics 365. In doing so, we were able to prove that the SME testing model can work with good professional tester support.

Our test automation has saved the wholesaler \$15,000 per month on average. This cost saving will continue through the life of the product and will allow them to safely adopt new releases without adversely impacting production.

In addition to affecting a company's brand, production outages could cost between \$425 and \$9,000 per minute in lost revenue. Our work ensured that this wholesaler could avoid the risk of downtime and its associated costs.

In addition to the cost benefits, the reduction in SME testing time is also significant, resulting in a savings of 2-4 weeks each month. This allows the SMEs to focus on their business-critical functions instead of performing regression testing. Not only does this help with efficiency, it also improves job satisfaction.

To this day, we continue to work with the wholesaler across a range of products and in various capacities, ranging from manual to specialist testing, as needed.



About Planit

At Planit, we are experts in quality engineering and assurance. Supported by our D365 Centre of Excellence and Accelerators, our specialist consultants can help you achieve a successful implementation.

Ask us how our free-to-access accelerators can save your Dynamics 365 implementation up to \$100,000!

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