

Saving over \$500k through Dynamics 365 automation

How this complex Dynamics 365 implementation saved time and money through automating testing and data preparation.



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Key outcomes

- \$112 million saved over five years, including \$28 million in legacy system costs.
- Four weeks saved per testing cycle from test automation.
- \$90k saved per year from test automation.
- \$190k saved from automating data preparation.

Technologies

- D365 CRM – Account Management
- D365 CRM – Sales Management
- D365 CRM – Case Management
- D365 CRM – Extensions
- D365 for Finance and Operations
- D365 Retail and Commerce
- Statement Generation Engine
- LogicApps
- Flow Integration
- BizTalk
- eSam Address Validation
- DPS Payment System

Delivered

- Functional testing
- Test automation
- Test management
- Data migration testing
- Integration testing
- Regression testing
- User acceptance testing

Tools

- Azure DevOps
- Selenium
- RSAT
- oData API
- EasyRepro
- PowerShell
- PowerBI
- SQL Management Studio
- tSQLt

The challenge

To better serve its customers and partners, this wholesaler needed to become a data-centric organisation. However, their current systems were too fragmented and inefficient to enable this vision.

It embarked on a three-year long business transformation to replace their legacy IT systems with Microsoft Dynamics 365, which the wholesaler picked for its efficient management of business information and resources. They engaged Microsoft to integrate Dynamics 365 across its entire business.

The implementation consisted of five modules including Finance and Operations, Account Management, Sales Management, Case Management and Customer Engagement Extensions, which are made up of almost 50 sub-modules. This meant every aspect of the wholesaler, its staff, and their work would be affected and transformed by the implementation. In addition to its technical complexity, Microsoft also recognised it amongst their top global projects in terms of size and scale.

As part of their custom implementation, the wholesaler also required their instance of Dynamics 365 to integrate with third party systems such as LogicApps, Flow Integration, BizTalk, as well as their own internal statement generation engine.



“With multiple stakeholders, external systems, and a parallel development schedule and dependencies, what Planit achieved is exemplary.”

Bharath Narayanan | Global Domain APJ Senior Project Manager | Microsoft Dynamics



The solution

The wholesaler immediately turned to Planit as their quality partner for this complex Dynamics 365 implementation.

This was a continuation of our existing relationship, where we had proven our understanding of their business and repeatedly demonstrated our technical proficiency. This, paired with our knowledge of Dynamics 365 and flexibility to scale our capability, made Planit the best choice for achieving their implementation goals.

Moving the wholesaler onto Dynamics 365 required consolidating large volumes of complex data from across multiple legacy systems, and then migrating it onto the new system. This involved a robust reconciliation process to ensure that all relevant data was migrated into the new environment, and that none was left within the source systems.

The data migration was so large and complex that it was broken down into several stages for optimal oversight and traceability. Each of these stages was designed to discover the source for data migration as early as possible, along with early detection of possible issues.

This approach not only accelerated the cadence that this critical business data came into Dynamics 365, but also ensured there were fewer errors in accessing and using the data within the new ERP environment.

By working with the wholesaler to conduct thorough end-to-end testing and user acceptance testing, we were able to validate that the right information was passed between various system and components, from start to finish, while also identifying system dependencies.

Throughout the process, our engineers were embedded within the wholesaler's teams, testing new features and functionality as they were added. By planning and executing multiple rounds of testing, we were best able to accommodate the iterative development taking place concurrently.

This created two key dates where logically grouped streams become available at separate times during the implementation. Once the initial stream of development was completed, this grouping of iterations could then be tested in an end-to-end sequence, followed by a second round of end-to-end testing once all the development was completed.

Automation was employed to reduce the time spent on regression testing. This involved creating a custom, Selenium-based test automation framework, which incorporated and extended Microsoft's open source EasyRepro framework and their Regression Suite Automation Tool (RSAT) for the Finance and Operations modules.

The size and duration of the implementation meant that turnover of technical staff at the wholesaler was unavoidable. Given our knowledge of the project, and ability to seamlessly backfill our staff, we were increasingly asked to take over the roles vacated by their outgoing staff rather than replacements being hired. This meant moving beyond just testing and taking a larger role in leading the implementation.



Outcome

Our quality assurance efforts enabled the wholesaler to navigate the technical complexity and successfully go-live on its intended date.

The switch to Dynamics 365 is estimated to save the wholesaler \$112 million over five years, including \$28 million in legacy system costs. By go-live, we had created and executed over 10,000 test cases. We also designed over 750 automated test cases. The test automation framework we built, and the automated test cases run on it, have the potential to save four weeks or \$60,000 of manual test execution effort each time the test suite is run.

The test automation solution provided additional benefits to other areas of the implementation, such as data preparation for functional testing and staff training. This saved approximately \$190,000 and up to a year in manual labour.

Out of 750 automated test cases, 250 were identified as part of regression testing to support regular minor and major releases from Microsoft, as well as frequent deployments to the wholesaler's test environment. This is the current test suite that they maintain and run every night, saving approximately two weeks of manual test execution each time or \$90,000 every year.

We continue to work with this client in supporting and expanding their Dynamics 365 setup, such as integrating it further with their other systems. Having already realised significant time and cost savings from our test automation framework, they are now working with us to automate approximately 80% of the regression test cases.



“I enjoyed working with Planit across the data migration and quality assurance, and was impressed with the outcome we all achieved together.”

Bharath Narayanan | Global Domain APJ Senior Project Manager | Microsoft Dynamics

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 support you in achieving a successful implementation.

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

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