



CASE STUDY


Taking Oxford Nanopore Technologies from
Microsoft Dynamics AX to Dynamics 365

Introduction

The Client: Oxford Nanopore Technologies (ONT)

ONT was established in 2005 as a spin-out enterprise of the University of Oxford. From there, it's grown rapidly to now employ approximately 500 people across a range of disciplines, including:

- Nanopore science
- Molecular biology and applications
- Informatics
- Engineering
- Electronics
- Manufacturing
- Commercialisation.



The overall goal of the team? Developing the new generation of DNA/RNA sequencing technology and bringing it to market.

For some background: DNA and RNA are both astonishingly complex molecules and each plays crucial roles in virtually all bio-science. To work with DNA or RNA, you need specialist tools to “sequence” it. The data collected via sequencing helps scientists tackle a vast array of biological questions.

It's not hard to see why ONT's work has wide-ranging applications in both the scientific and applied market sectors. Everything from genome science to the farming industry can benefit from better sequencing technology. Indeed, ONT's solutions have even played a role in the research to combat the COVID-19 outbreak.

About IntelliSense IT

As leaders in industry and business integration solutions, IntelliSense IT tackles their fair share of IT hurdles for clients. Their work with Oxford Nanopore Technologies (ONT) was no exception. As leaders themselves - in DNA/RNA sequencing technology - ONT requires their IT solutions to be both secure and effective.

This is why, when it came time to shift from Microsoft Dynamics AX to Microsoft Dynamics 365, ONT needed a business integration solutions partner who knew what they were doing. IntelliSense IT was the perfect fit.

Read on for a review of the project: who was involved, the issues resolved ... and the successful solution.

The Problem

Like many thriving businesses, ONT runs an enterprise resource planning (ERP) system to help them manage day-to-day activities in an integrated manner. These activities include:

- Accounting
- Procurement
- Project management
- Risk management and compliance
- Supply chain operations.

Before IntelliSense IT's engagement, ONT was running Microsoft Dynamics AX - one of several ERP solutions in the Microsoft Dynamics family. Primarily used by midsize-to-large businesses, Dynamics AX provided the best feature coverage at the time ONT adopted it. Times had, however, changed...

The most recent version of Dynamics AX launched in late 2016 as "Dynamics 365 for Operations". After undergoing a name change in July 2017, it became known as "Dynamics 365 for Finance and Operations". This is now the leading ERP solution.

Key Differences Between Dynamics AX & Dynamics 365

The Problem (cont.)

As far as specs go, there are several crucial differences between Dynamics AX and Dynamics 365:

- Server vs. cloud: Dynamics AX is a server-based application that requires physical hardware. Dynamics 365, on the other hand, is a cloud-first platform.
- Web-based login: Dynamics AX is a desktop application, while Dynamics 365 is browser-based. The browser interface means Dynamics 365 is more agile and able to be updated more seamlessly and readily. It's also a win on the accessibility and mobility front: the app can now be accessed and run from almost any device, so long as it has internet access.
- Streamlined interface: Dynamics 365 offered a major facelift over AX, improving the user experience and encouraging collaboration between users.
- Improved integrations: Being cloud-first gives Dynamics 365 the ability to integrate seamlessly with other Microsoft cloud products.
- Better business intelligence: Dynamics 365 has access to artificial-intelligence-powered analytical services and more extensive sets of business data. This means it massively outpaces previous versions of Dynamics AX in terms of both reporting and business intelligence.
- More frequent updates: Another pro of being a cloud-based platform is that Dynamics 365 no longer requires action from the user to push updates. Instead, new developments and fixes are rolled out more easily and frequently.
- A more flexible pricing model: Dynamics 365 was launched with a new pricing model, one that saves users money on user and device licenses.



“Before IntelliSense
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The Business Catalyst

The overall upshot is that Dynamics 365 was the future of ERP. It was not only better than its predecessor, it was also prioritised by Microsoft in terms of both updates and innovation. To avoid being left behind, it was in ONT’s best business interests to migrate from Dynamics AX to Dynamics 365.

That said, the migration isn’t an easy one. The degree of difficulty only increases for businesses with a large user base and copious amounts of data. Businesses exactly like ONT.

The Project Trigger



Jake Huebner

Project Consultant @ Intelisense IT

“There’s no preparing for shifts in the technology or threats that might arise. For a company like ONT, whose security is obviously paramount due to the amount of intellectual property at play, they must ensure the technologies they work with are fully secure.”

ONT, running on Dynamics AX, already knew they would have to migrate to Dynamics 365 to stay relevant. Then came crunch time. Their substantial maintained server contract was up for renewal and was going to need a three-year commitment. For a business of ONT’s size, that was a significant investment.

Furthermore, the odds of them having to migrate to Dynamics 365 in those three years were high: the version of Dynamics AX they were running was due to be taken out of support in the mid-term. And, once a service is discontinued, Microsoft no longer offers much of the crucial support and there are no more security patches or bug fixes in the pipeline.

Jake Huebner, IntelliSense IT’s Microsoft Dynamics Consultant on the ONT Dynamics 365 project, explains that the risks to an organisation increase when the technology it uses isn’t kept up to date.

Thus, it became apparent to ONT management that migrating to Dynamics 365 sooner rather than later would not only improve their ERP capabilities, it would also keep them secure while saving time and money over the long term. Now, ONT just needed to engage the right people to help them make the switch - IntelliSense IT.



The Right People For The Job

With decades of experience under its belt, IntelliSense IT offers exactly the kind of end-to-end industry and business integration solutions that companies like ONT depend on. Utilising Microsoft technologies, IntelliSense IT's aim is to reduce costs associated with ERP, customer relationship management and supply chain management.

When it came time to shift from Dynamics AX to Dynamics 365, ONT chose to work with the same provider that had implemented its Dynamics AX system five years previously - IntelliSense IT.

Having already worked with IntelliSense IT's founders, Andrew Rumney and Amo Khan, ONT knew from an implementation standpoint how good IntelliSense IT was. Further, ONT also knew IntelliSense IT offered the kind of personal service the project would require. Soon, the wheels were in motion.

The Solution

While ONT's shift from Dynamics AX to Dynamics 365 was the main thrust of the project, there was a little more to it. Across years of using Microsoft products, ONT had configured and modified their ERP software to suit their unique needs.

The capabilities of this setup represented a valuable asset that ONT did not want to lose. So, as well as migrating the platform, IntelliSense was trusted to maintain ONT's bespoke functionalities and, where possible, improve them.

The planned developments were carefully considered against the timeline for the project, ensuring that a balance was struck and ONT was able to upgrade to a better, more effective solution in a reasonable timeframe.

Once initiated in November 2019, the project would undergo three main stages:



The discovery phase also gave IntelliSense IT the opportunity to review ONT's existing processes.

1. Discovery

During the discovery phase IntelliSense IT worked to understand ONT's business, operations and needs. This process involved drilling down into ONT's processes, ensuring that every one of the roughly 500 employees got the most out of the planned ERP upgrade.

2. Design & Development

As the meat of the project, the design and development phase involved IntelliSense IT working to build the proposed solutions, implement the improvements and iron out any fundamental bugs.



3. User Acceptance Testing (UAT)

The final stage of the project, UAT involved giving ONT employees access to the new solution to essentially “stress test” it before the final go-live.

“The UAT mapped to the workstreams. You’ve got someone on their integration side working with our integration guy, testing everything that he’s done; you have someone from finance going through and testing everything financially; and so on and so forth,” Huebner says.

The UAT period lasted two weeks, during which ONT’s team worked with the new solution, raising issues, bugs or questions as they went. Following this, IntelliSense IT took one week to resolve the issues and ensure the platform was ready.

Then, when everything was set, it was the work of a weekend to push ONT’s new ERP solution live. The ONT team walked out on Friday afternoon under one ERP regime and came in on Monday ready to work under a newer and much more powerful one. One that was immediately functional and contained the bespoke configurations that ONT had built and relied on.

Adapting To The Unforeseen

This year, 2020, was certainly an interesting one in which to roll out a project of this scale. Government directives to limit the COVID-19 pandemic meant IntelliSense IT's entire team was working remotely by March. The result of this was zero on-site consultancy throughout the ONT project.

However, as IntelliSense IT and ONT are both Microsoft technology veterans, the implementation teams on both sides quickly made Microsoft Teams the central component of their collaboration. While the 100-percent videoconferencing approach still secured a successful outcome, it wasn't without challenges. "It's more difficult to read the room and check comprehension of people when you're not face-to-face with them," Huebner says.

"It meant the planning of this project was absolutely critical to ensure we had communicated all of the relevant information effectively."

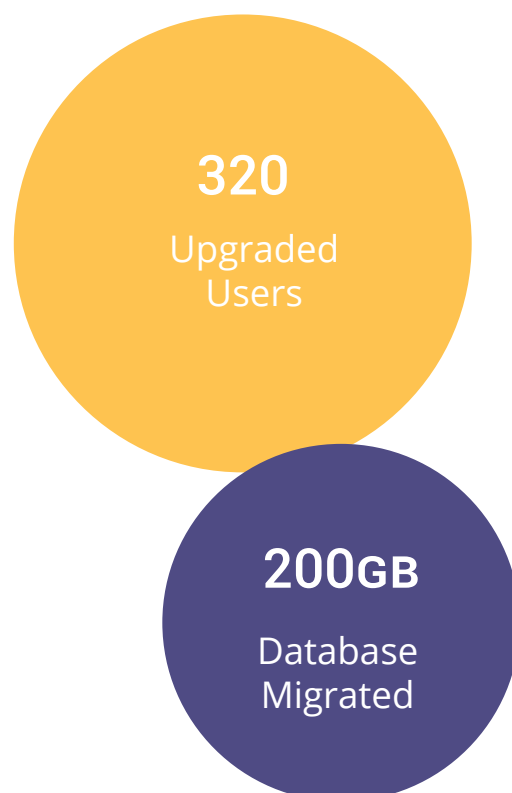
And all that planning came to fruition. ONT's shift from Dynamics AX to Dynamics 365 played out smoothly, despite the hurdles of COVID-19 lockdowns. The project is now on track for full sign-off, following all testing, in November of 2020. Just 12 months from beginning to end is unusually swift for such a large and complex migration.



Technical Points

In implementing ONT's shift from Microsoft Dynamics AX to Microsoft Dynamics 365, the team at IntelliSense IT undertook a considerable amount of development, deployment and support work - often on constrained timeframes. Nonetheless, through good planning and project controls, the IntelliSense IT team successfully:

- upgraded 320 users
- migrated a 200GB database within a 24-hour period
- delivered five major integrations, including:
 - » Magento ecommerce integration
 - » Advance warehouse with 3PL integration (inhouse ISP)
 - » BYOD data warehouse replication integration
 - » Third-party systems updating status of orders (via OData services)
 - » Enabling the functionality of PunchOut with RS components and Farnell.
- conducted a code upgrade
- ran a CAR Report for best practices
- undertook comprehensive performance testing
- undertook RSAT testing with automated scripts.



Key People

Like any large project, many people have contributed to the success of ONT's Dynamics AX to Dynamics 365 migration

For ONT, the key people were:

Natasha Dunn

- Business Systems Change Manager

Mike Harvey

- Associate Director of Business Systems

Rob Chapman

- Business Systems Administrator

On the IntelliSense IT side, the core team included:

Jake Huebner

- Microsoft Dynamics Consultant

Amo Khan

- Managing Director

Andrew Rumney

- Solutions Architect

Vinod Dhandapani

- Lead Finance/Functional Consultant

Pavandeep Aujla

- Microsoft Dynamics Support Manager

Anitha Eswaran

- Lead Technical Consultant



What Can IntelliSense IT Do For Your Next Project?

Using decades of experience to inform a focus on what's new and what's better, IntelliSense IT has the expertise that only comes with full immersion in business integrations. They're leaders in the industry for a reason.


When you're looking to tackle an IT project that will fundamentally change how your business works - without detracting from day-to-day productivity - it's time to talk to IntelliSense IT.

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Smart solutions... **by people**

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