

On the Case: Infosys – Microsoft

Agile transformation of legacy system and IT delivery

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Summary

Catalyst

Like many enterprises looking at ways to better engage customers and partners and to leverage inputs from these interactions to drive future strategy, Microsoft Corp. wanted to modernize its Partner Program portal and improve the interface to enhance the way it engaged its resale partners across the globe. This portal resides at the core of Microsoft's business and is the primary channel through which its partners access services such as enrollment, product training, and incentive programs, to name a few.

Given the importance of the Partner Program portal to enable revenue, Microsoft wanted to improve the partner experience with the portal and increase the speed of updates. It decided to modernize the existing platform and embrace an agile development model. After an initial setback when attempting to move to a new platform, Microsoft engaged Infosys to recoup and deliver an enhanced Partner Program while simultaneously introducing and scaling agile practices into the project.

Key messages

- This case study highlights the critical role that proper execution plays in the implementation of a planned, top-down driven agile initiative. It also showcases the importance of taking a collaborative approach and maintaining an ongoing two-way dialogue around key project parameters to facilitate penetration of agile practices.
- The proactive approach taken by Infosys to identify and develop action plans ahead of time, and the extra effort they put into developing tools and automation frameworks to speed up the development process, highlight the role a strategic partner can play in successful execution.
- The successful modernization of Microsoft's Partner Program portal, adding new capabilities with minimum disruption to the business, is testament to the importance of partnering with a vendor that brings the right combination of skills and business knowledge.
- Credit must also be given to the Microsoft leadership for its involvement throughout the process, the creation of a clear roadmap for reengineering and modernization, the identification and development of action plans to address critical business needs first, and the attention paid to maintaining a transparent two-way communication channel – all of which were essential for such a complex project to succeed.

Ovum view

The Infosys-Microsoft engagement is part of an ongoing trend of clients preferring vendors/partners that possess expertise in specific business areas and have the ability to quickly assimilate a team with the right technical skillsets. The engagement is also a testament to the importance of working with a partner who emphasizes client needs and puts in that extra bit of effort to deliver beyond initial expectations.

The case study highlights the impact that a vendor's ability to combine domain expertise and knowledge of internal processes and business challenges can have in the success of modernization initiatives.

Microsoft is one of the world's largest software vendors, and the global reach of its business is immense and unmatched. Microsoft's management understood the need to do away with its redundant Partner Program system and move to a new platform, in keeping with its larger change effort to embrace agile. Microsoft decided to adopt agile development practices across the teams working on the system. Business and IT organizations worked together and made conscious decisions about the conversion process, integration plans, and systems that needed refreshing, and were actively involved throughout the initiative. This is a high-visibility project, and after an initial setback that caused significant delays and technical challenges there was an intense need to rapidly modernize the systems – not just to resolve existing issues, but to improve partner engagement and time to market.

Infosys was chosen as the replacement because of its depth of expertise around Microsoft's partner business and its ability to bring in frameworks that would enable rapid scaling of agile practices. In our interviews, Microsoft executives expressed their appreciation for Infosys' commitment to deliver within time and budgetary constraints; the vendor's collaborative approach, flexibility, and focus on quality; and their efforts to help the smooth transition to agile. Infosys also invested in developing the tools and automation frameworks needed to speed up the ideation, development, and testing processes, which is proof of an active and engaged partnership.

By delivering consistently high-quality work within time and budget and going that extra mile in taking ownership and the initiative to address challenges, Infosys has cultivated a highly reference-worthy relationship with Microsoft around its agile transformation capabilities. It is difficult to overemphasize the importance of focusing on client needs in marketing messages, and the positive feedback from Microsoft on the success of the project is a much stronger endorsement of the benefits of client-centricity.

Recommendations

Enterprises looking at scaling agile practices

Scaling agile practices is not an easy task and requires cooperation and coordination within the business units as well as with the vendor teams to get it right. Enterprises need to take the following steps to ensure successful scaling of agile practices:

- Ensure there is clarity on current issues and backlogs and on where the business currently sits in the agile spectrum, and that these are communicated to the vendor. You can't "throw" the problem at the vendor and expect them to solve it without giving them the necessary background to operate effectively.
- Encourage vendors to be transparent about issues and challenges, and be open about any concerns that the business may have. This greatly reduces the time taken for making technical decisions and builds confidence in the teams.
- Don't skimp on investments that need to be made in the infrastructure that will support both the new system and the development of that system (such as automated test and deployment environments etc.).
- Do not place the vendor at a disadvantage by dictating the terms and decisions on what features to build in what increments and by penalizing any deviations. Make it a partnership

that can be fluid to suit requirements, where the vendor is not afraid of penalties and is involved and engaged in the decision-making process. This enables efficient delivery and adherence to time and budgetary constraints.

- Invest in finding the right cross-functional skills in the team and bringing them together. This will ease task flow and enhance the clarity with which goals are chased.
- Understand that agile requires a culture change that cannot happen overnight. Achieving this mindset requires a systematic, goal-oriented, and collaborative approach.

Customer case file

IT services data sheet: Microsoft’s Partner Program portal modernization

Table 1: Data sheet

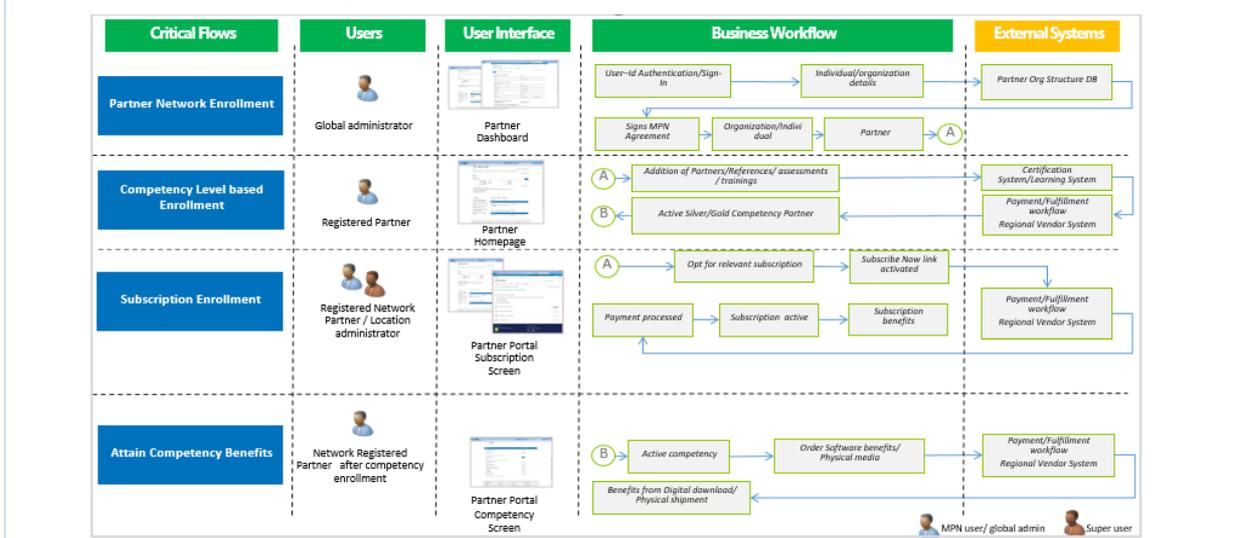
Vertical industry	Software	Length of contract	18 months; ongoing engagement
Customer size	\$89.5.3bn in annual revenues for 2017 and 124,000 employees worldwide	Key SLAs	Increased CSAT Reduced bug trend Improved traceability from portfolio to the teams Improved throughput and productivity from the teams Faster time to market
Priority issue	Modernizing and scaling existing partner management system	Key facts on ongoing support	Application availability: Target – 97% Production deployment downtime < 5 hours Reduce the software bugs count to be < 100
Type of service	Application modernization, development, testing, and maintenance		

Source: Ovum

Background

Headquartered in Redmond, WA, Microsoft Corp is one of the world’s largest technology companies with a presence in virtually every country across the globe. The Partner Program portal is Microsoft’s primary interface through which it engages with its global channel partner network. The portal provides a single window for the partners to create and manage their profile, track sales and incentive program eligibility, and enroll for and undergo training and certification on Microsoft products. It also acts as the master database of the company’s global partners (see Figure 1). Nearly 90% of Microsoft’s annual revenues are generated from this partner network, making the Partner Program portal a business-critical system for both Microsoft and its partners.

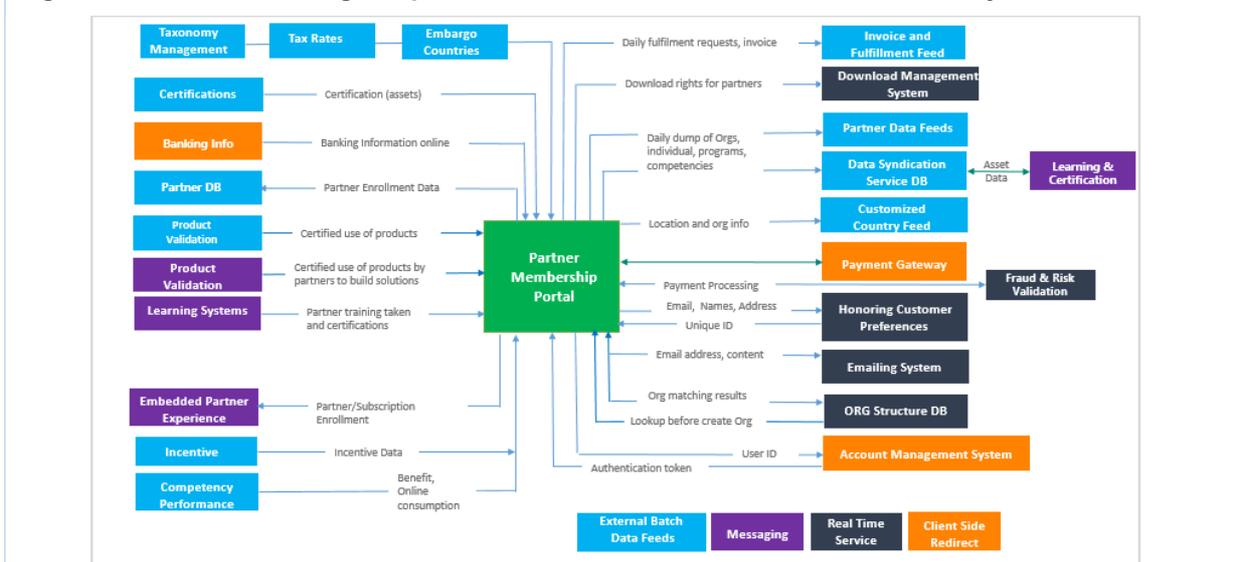
Figure 1: The Partner Program portal is the main window for partner interactions



Source: Microsoft/Infosys

The portal was originally developed over a decade ago and although it has seen a few updates over the years, it had become outdated and the interface was clunky which negatively impacted partner engagement and satisfaction. There were a number of persistent bugs impacting the system’s ability to manage data for the global network it served. The system is also linked to several others within the organization and there are heavy interdependencies that need to be addressed every time a new product is released (see Figure 2). Taken together, these issues hampered attempts to speed up time to market when new products/services were launched, as well as limiting traceability across the portfolio and teams.

Figure 2: The Partner Program portal is at the core of Microsoft’s business systems



Source: Microsoft/Infosys

Microsoft had commissioned a different vendor in 2012–13 to develop a new system to replace the aging one. The key drivers for this initiative were

- cloud-first directive across the organization, involving major epics (i.e. large chunks of work with a common objective such as a business requirement) about movement to Microsoft Azure and cloud-based business models
- the need to address a large backlog of enhancement requests from business to support Microsoft's new product launches and the availability of benefits and integrated partner experience, which could only be achieved by replacing the legacy system
- modernization of the platform to address issues faced by partners and to improve customer satisfaction (CSAT) scores
- the need to be compliant with the latest fraud, legal, and trade standards
- modernization of the platform to enable support for frequent releases and to speed up time to market.

However, this attempt to build a new application from scratch suffered a major setback as the vendor involved did not deliver a working version within the required time frame. Microsoft decided to abandon the original strategy of developing a new platform and address the major requirements and fixes with the current platform while adopting and scaling agile practices within the team – but this needed to be done quickly. In early 2015, Microsoft brought Infosys on board to lead this project since Infosys was familiar with the business challenges being addressed and possessed the necessary domain expertise to deliver on the requirements. Microsoft also had prior, successful, experience working with Infosys across other parts of its business and was confident in the vendor's ability to bring together deep knowledge of the business and the agile skills and tools needed to execute.

Since the system was business critical and this part of Microsoft's business was new to agile development methodologies and processes, this caused a fair bit of apprehension at the onset. However, Microsoft's management was committed to "going agile" and provided full support to internal and Infosys teams for the transformation. The key goals that the project had to achieve included the following:

- speed up time to market by resolving 60+ integration points and dependencies that needed to be regressed every release
- transform the traditional mindset and understanding of roles and responsibilities of development teams
- resolve 500+ support tickets and improve CSAT of current platform
- address accumulated bugs, technical debts (automation, performance) in the current platform.

The project had high visibility across the client organization and the key challenges that Infosys faced were

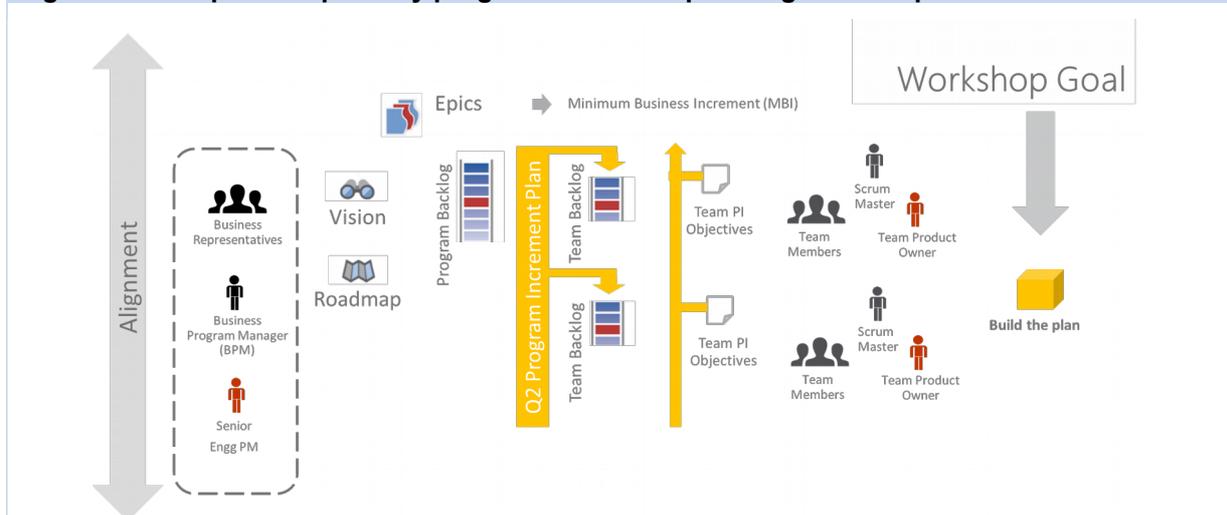
- huge pressure to deliver results due to the recent failure to create a new platform
- large backlog of feature requests from business that needed to be delivered
- urgent need to ramp up new teams in India and the US to support the project
- agile transformation and alignment of the distributed teams to set goals
- the introduction of transparent metrics to measure team output.

Implementation and results

Microsoft and Infosys took great care in planning the implementation and started by creating clarity into the backlog and breaking it down into incremental values to be added at every sprint. The focus was on prioritizing the changes that would offer the most visible business value rather than just provide quick results, and also on improving the morale of the development and business teams. The decision was taken to utilize teams based in the US and India in Infosys’ and Microsoft’s development centers in order to leverage the follow-the-sun approach. It was critical to ensure that these geographically dispersed agile teams efficiently functioned as one. To achieve this, Infosys and Microsoft established a “one team” mindset. Both the vendor and the client teams were cross-pollinated and set up with similar tools and processes and were aligned to the same goals. Scaled Agile Framework (SAFe) principles were adopted to help transition to an agile delivery model, and in-house training and certification on SAFe principles and practices were also rolled out to both the teams as needed.

One of the key things that made a huge difference was the introduction of a planning increment for every 12 weeks – a two-day workshop where teams from both sides (including business and IT) came together (see Figure 3). During this workshop, Microsoft’s business teams would present their requirements and Infosys would highlight the capacity of its engineering teams (what they are doing currently, how much more work they can take up). The backlogs due to be addressed in the next 12 weeks were planned and at the end of the meeting a bilateral decision was made on the features that were most important. These features would be worked into the plans for the sprints in the upcoming 12 weeks.

Figure 3: Example of a quarterly program increment planning workshop



Source: Microsoft/Infosys

This bringing together of various teams made the planning process highly transparent and give a clear picture of what the next 12 weeks were going to look like, allowing both parties to plan and budget accordingly. Additional initiatives included the following:

- adoption of Visual Studio Online and optimally sized, cross-functional feature crews
- defining roles, artifacts, and agile team performance metrics
- emphasizing the role of the product owner responsible for cross-team and cross-geo coordination

- introduction of portfolio, program, and team levels making up the agile release train
- introducing backlogs – with epics, features, and stories
- establishing cadence (2 week sprints) to synchronize and align with the crews
- daily scrum within each team and bi-weekly scrum of scrums with the product owners/scrums masters of each team for better collaboration and integration
- monthly status reports sent by Microsoft to all stakeholders with all the details of current work and future planned work, so building trust and confidence in the business groups for the Partner Program portal.

Infosys created teams to address automation debts (build, deploy, regression, and load tests) and a systems team to help set up a continuous integration and continuous delivery pipeline to gate check-ins, deployments, and code promotions, and to manage environments. Infosys also invested in creating parallel teams to deliver business features around long-pending concerns that were hampered by technical debt. Both these investments were done by Infosys and were above and beyond Microsoft's expectations in terms of commitment from the vendor. These initiatives were appreciated by Microsoft's executives in our interviews and they said "Infosys exceeded expectations when it comes to this project. They did what was needed – recover and stabilize the legacy system, and unjam the backlog. However, they also delivered things that Microsoft's leadership did not expect." In terms of delivery there has been 100% schedule adherence for all the releases in the last four quarters. Some of the key business capabilities delivered so far are as follows:

- **Project Omega (retire on-premises competencies and enable partners to use cloud products):** Implemented an automated platform to retire old on-premises competencies. This has resulted in effort savings of ~2,000 person hours of additional development time. (Manual retirement of one competency took ~150 hours of development and stabilization efforts and there were 13 competencies in total.)
- **Partner University Project:** Migration from Partner Learning Center to the Microsoft Learning Experience that transforms the training experience for Microsoft's partner ecosystem. This helps Microsoft to eliminate the huge license cost of the third-party software it was using for this purpose.
- **Simplified partner enrollment and re-enrollment processes:** Average enrollment time for a partner has been reduced significantly by providing a simple one-page experience (down from the previous six-page process).
- **Device fraud mitigation:** Validation of all financial transactions is done through the Partner Program portal. This will help limit Microsoft's liability, improve compliance with US regulatory frameworks, and reduce fraudulent transactions.
- **Self-serve portal for ordering physical benefits:** Self-service has been introduced for ordering marketing/branded materials and aligning utilization of program benefits distribution. The physical benefits are shipped upon partner request which enables a savings of approximately ~\$1million annually.
- **Payee onboarding integration:** The integration of the payee portal with the partner network has enhanced the partner experience by adding the ability to provide banking/tax information digitally.
- **Onboarding new products and benefits in the digital download portal:** Partners can download their products/keys directly from the portal. This has improved operational

efficiencies by eliminating manual processes through changes including switching demos from trial to paid production instances and achieves an estimated annual cost saving of \$400,000.

Some of the unique aspects that the client appreciated included the high morale in Infosys' team members and their spirit of optimism and pride in their work that rubbed off on Microsoft's team as well. This helped cement the interpersonal relationships that are the foundation of high-performing agile teams. Infosys' teams were able to speed up decision-making and to generate and own ideas, and they took a highly proactive approach which is rare in these type of engagements. Infosys' teams also established several engineering practices to improve productivity across both the vendor and client organizations. These included

- assessing sprint-ahead effectiveness to ascertain delivery of sprint commitment
- addressing test environment gaps and ensuring they are on par with production for early visibility of defects
- integrating tests and security scans with build to boost release confidence
- piloting a self-organized crew that owned development, test, security, and performance processes and was tasked with getting production-ready code in two weeks.

Infosys' agile teams were able to quickly add small changes and features that addressed concerns around issues such as enrollment, piracy, financial fraud, and verification for partners using this platform which earned quick wins and helped boost CSAT. These efforts established confidence among Microsoft's management teams that the vendor had their best interest in mind and elicited greater cooperation across the board. This was significant because although this Microsoft team had previous experience with employee teams using agile processes in incubation-type projects it was inexperienced in doing agile at scale with a vendor.

The ongoing success of the project modules, and Infosys' contributions in enabling Microsoft's teams to scale agile processes and practices, have resulted in a strong partnership between the two firms. Moreover, the proactive efforts taken to create parallel teams to address certain challenges are hallmarks of an engagement where the vendor is committed to adhering to delivery schedules. This engagement is an efficacious example of how a coordinated and collaborative approach can benefit attempts to scale agile practices in a traditional IT organization.

Appendix

On the Case

On the Case is a premium case study produced by Ovum's IT Services team. These case studies highlight IT services and outsourcing engagements based on a series of criteria, including innovation (a unique component in either service engagement or delivery, or the deployment of cutting-edge technology), proven business benefit or impact, and demonstrable ROI. On the Case is designed to provide insight to enterprise customers looking to implement similar IT services or outsourcing engagements and/or to provide lessons learned on how to work and interact with the IT services/outsourcing vendor profiled in each case study.

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