

HMRC MIGRATES ITS MISSION-CRITICAL SAP PLATFORM TO MICROSOFT AZURE

With Capgemini as its partner, HMRC transitions its tax and revenue management platform from on-premises infrastructure to the Microsoft Azure cloud environment in one of the largest migrations of its kind in the world

PREPARING FOR CLOUD MIGRATION

HM Revenue & Customs' (HMRC) SAP Platform is integral to the collection of over £635 billion in annual tax revenues, as well as supporting payment schemes, such as Child Benefit and COVID-19, that provide vital welfare relief to millions of citizens. It is a mission critical service that supports the UK's population, 65,000 HMRC employees, and over 650 external interfaces.

HMRC's strategic aim is to consolidate multiple tax regimes onto a single platform. However, it was essential to first ensure that the system in place could effectively handle the scale needed while also being sustainable, resilient, and flexible enough to adapt to future demands. In order to successfully develop and execute an innovative plan to transition to the cloud, HMRC partnered with Capgemini to combine their distinct pools of expertise.

MULTI-FACETED SYSTEM DEVELOPMENT

A key success factor of this large-scale and complex migration and transformation programme was the close collaboration between Capgemini, HMRC, its strategic partners, and third parties. Working as one

Overview

Client: HMRC

Industry: Government & Public Sector

Region: United Kingdom

Client Challenge: As part of its modernisation and cloud-first strategy, HMRC wanted to move its SAP platform from existing data centres to a scalable public cloud environment in order to more effectively use its data, lower costs, simplify its IT estate, and support new services

Solution: HMRC worked with Capgemini to implement a vast and complex migration to Microsoft's Azure cloud platform, performing the actual transition in a single weekend to avoid disruption to critical national services

Benefits:

- Operational cost reduction
- Improved environment deployment speed and resilience
- Quicker issue resolution and automation
- Improved user response times and future-proof infrastructure platform scalability
- Reduced run and change costs



team, they launched the project with a discovery phase focused on identifying the best fit cloud platform for HMRC. The department has a multi-cloud supplier strategy, but in this instance it selected Microsoft's Azure cloud solution, which provided both a hyperscale environment and supports a wide range of services.

A design phase followed, during which the team developed a pioneering foundation and infrastructure transformation for the new environment. Following agile delivery methods, the team remained flexible, continually evaluating and adapting their designs and migration approach as challenges were identified and resolved. Once the team fully understood the project requirements, they launched a build workstream that added a substantial degree of automation to deliver the solution.

Rigorous intensive testing cycles were carried out to identify and fix any performance issues that could impact HMRC's business after the project's migration. In addition, HMRC and Capgemini established a workstream focused on the system's complex integration to understand how the cloud environment would interoperate with existing systems. This stream covered around 650 interfaces and ensured that the platform would continue to work with all connected services following its implementation.

In parallel, the partners defined the migration approach needed to complete the transition. This included continual engagement with business stakeholders, thorough assurance testing, and a series of dress rehearsals ahead of the actual implementation to avoid any business impact.

HMRC couldn't allow its critical SAP platform to undergo a lengthy weekday shut down, which would have affected many tax operations and impacted its annual accounting. For that reason, HMRC's business stakeholders were brought into the project's Programme Board to agree on a single weekend timeline for the final cutover. The migration itself was a huge undertaking that hinged on an Oracle solution accurately migrating over 36 TB of accounting data that needed to be synchronised before the cutover could commence. Multi-supplier teams and remote working meant that extensive collaboration was paramount to this success.

To safeguard the new, end-to-end service and key business events during the migration and through the first eight weeks of operation, HMRC and Capgemini established an overarching, end-to-end enhanced live service support. Capgemini led this highly focused level of support, known as 'hypercare', which was applied across different suppliers, managed incidents, and shared technical expertise to ensure the fastest incident resolution with minimal business impact.

DISRUPTION-FREE CLOUD MIGRATION

HMRC had its entire SAP business tax and revenue management platform migrated onto Microsoft's Azure cloud environment using almost 500 virtual machines with no disruption to the business. With a hyperscale solution, HMRC knew it would be able to keep up with the evergrowing amount of infrastructure resources and data that it would need to operate. Applying infrastructure-as-code automation increased the speed and consistency to deploy environments, allowing much more frequent releases. In this way, HMRC has laid the foundations for future business transformation by expanding its capacity to deliver change at pace, and further innovate through new technologies that are key to its strategic goals.

With the cloud solution, HMRC can identify and resolve issues as soon as they arise and address them quickly before any major impact is felt by users who rely on its critical services. As a result of this migration, HMRC is now well positioned to leverage the projects' design, migration and deployment patterns, and processes for future migrations. Together, HMRC and Capgemini are continuing to migrate other services to the cloud to unlock the same benefits of this now proven pattern.

About Capgemini

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