

Managing successful change: IT service transformation at HMRC

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Introduction

HM Revenue & Customs (HMRC) is at the heart of UK government, with 38 million individual customers and 4.5 million business customers. Critical to the successful provision of public services, the department ensures the safe movement of goods into and out of the UK, collects around £469 billion in tax and pays out about £40 billion. The department delivers 640 different IT services, ranging from small-business development applications to the extensive systems needed to support a range of specific tax-assessment processes. The department's IT function is considered by the Office of the Government Chief Information Officer to be the second largest in the UK.

This case study describes how HMRC's IT services were transformed through a major enterprise release (ER) that was implemented in critical timescales with minimal disruption to the business and public services.

Background

The 2010 spending review signalled one of the most demanding and ambitious periods of change faced by HMRC in recent history. A 25% reduction in IT spend was expected by 2014-15, in parallel with increasing demands on quality and performance and wide-ranging legislative changes. Also, a new platform was needed to process 800,000 payments per day, to be set up without disrupting HMRC's business, or its customers.

The project would be undertaken within the Aspire contract with the IT services supplier Capgemini. ITIL® best practices for IT service management were already embedded within HMRC, and robust change and release processes would underpin every aspect of the implementation.

Aims

Against this backdrop of change and improvement targets, the project aimed to align services with the latest financial legislation. The changes would affect every aspect of HMRC's business, with the majority of services involving complex interdependencies. In total, five major project and enhancement packages needed to be delivered in April 2011, to 48 mission-critical IT systems.

The project would:

- Align all IT services with the latest financial legislation
- Achieve a reduction in IT spend totalling £8.2 million in annual savings
- Decommission a legacy service introduced in the 1980s – a bit like removing the centre of a 25-year-old spider's web without upsetting the spider!
- Upskill the workforce with professional IT service management qualifications
- Enhance ISO certifications.

The approach

Timing was key to the approach taken. Many HMRC services need to be available 24/7, so any outage that would require customers to revert to paper-based contingencies had to be avoided. In addition, large numbers of services had to be upgraded in time for the start of the new tax year on 6 April, whilst allowing customers to continue transactions until the end of the old tax year. The issue was exacerbated by a late Easter bank holiday, removing the possibility of minimizing the impact on customers by taking advantage of this period.

EARLY ENGAGEMENT WITH THE BUSINESS

The timing issue was identified by HMRC and Aspire 12 months before the start of the project. This early engagement with the business allowed time for a detailed implementation approach to be formulated, minimizing the impact on day-to-day business.

ROBUST ITIL CHANGE AND RELEASE PROCESSES

To support the project's goal of improving processes, an ITIL Capability Maturity Model (CMM) assessment was undertaken. The results were excellent, with independent auditors scoring change, incident, problem and service management as level four. These results provided confidence that the IT service management processes in place were sufficiently robust to support the ER changes. The assessment proved that change could be managed effectively whilst being consistent, controlled and integrated with suppliers and other ITIL service management processes.

CERTIFICATION AGAINST INTERNATIONAL STANDARDS

In November 2010, Aspire service delivery was awarded triple ISO standard certification following a single external audit. The auditors recommended recertification against the ISO9001 quality standard, and recommended first-time certification against the ISO20000 IT service management standard and the ISO27001 information security management standard. By aligning with these latest standards, the team ensured it was in the best possible position to meet current and future challenges.

PROFESSIONAL DEVELOPMENT

A continuing commitment to developing workforce skills helped to ensure the highest level of capability for the April ER. HMRC and Aspire both embarked on aligning their teams with the latest standards and qualifications in IT service management. HMRC's Application Services team's ITIL v3 credits rose from 18 in July 2010 to 192 in May 2011. Aspire was also investing in ITIL training, with 113 people completing ITIL v3 Foundation and Bridging courses.

CHANGE MANAGEMENT GOVERNANCE

HMRC and Aspire had a standard process to hold a specific Change Advisory Board (CAB) in the week before an implementation, as the formal authority for acceptance of IT change. For April 2011, each service held its own CAB early, allowing extra time to track and manage outstanding activities and service acceptance criteria and to identify the compound effect of individual risks at an enterprise level.

EARLY LIFE SUPPORT

Early life support (ELS) aims to improve business relationship management following major or complex releases by providing a Live Services Mission Control Room to manage any issues occurring in the first days of live running. By communicating earlier with the business's customers, the April 2011 team made certain that the key stakeholders were all engaged and informed, and that business continuity plans were in place, with media and internal briefings prepared in readiness for any eventuality. This focus on consistent and coordinated communications spread through all aspects of the project.

Service-specific entry and exit criteria for ELS were set, with each service having a predefined point of stability which had to be achieved before it went live. This meant that all issues were addressed quickly and consistently. ELS retained 'ownership' of the service until the exit criteria were met, at which point the service was handed back to the 'business as usual' team.

INCIDENT MANAGEMENT

The approach included a focus on reducing the number of incidents per user. At the end of the service year (April 2010 to April 2011) the key performance indicators (KPIs) for incident management were exceeded, with 97.3% of service level agreement (SLA) targets being met, against a target of 97%.

Challenges

Upgrading so many interconnected IT services in a single release over a 72- to 96-hour period was extremely challenging, needing meticulous planning, strict governance and total adherence to the processes. A detailed consultation and communication strategy was used to engage with stakeholders and achieve full cooperation from IT suppliers and HMRC business members.

Close liaison with the Live Service teams was needed to construct a detailed schedule of activities for every impacted service. Each schedule started three months prior to system implementation, and moved through an hour-by-hour plan during and after implementation. These schedules were consolidated within an overall timeline that included every service and aimed to:

- Be the key deployment governance tool for progress meetings
- Identify services that could be returned early to minimize the impact on the business
- Coordinate release assurance checks (RACs) so that dependent services would come online together, allowing business services to be proven at the same time as the IT changes
- Identify services where RACs could only take place in what would have been a normal online day, so that the business could assess and mitigate the risks of unauthorised access
- Keep the business regularly informed of service outage timings as plans progressed.

For some services, the risk of conducting RACs during an online day was too great. Close liaison and negotiation with the businesses meant that some offices were opened during the night, protecting security and reducing the risk to data if errors were found.

Successes

Aspire ER Management micromanaged the implementation. All services were closed at their scheduled times, the deployments followed the predicted timeline, and all services were restored successfully at their allotted times.

No significant problems were reported on 6 April and only a handful of minor problems followed live implementation. All performance targets were met and none of the business continuity plans in place needed to be invoked. The ER was delivered on schedule, with no major incidents and within the agreed outage window.

ITIL PROCESSES

The project included further development of existing ITIL processes, such that an independent assessment identified that six processes increased their maturity during the year:

- Change management
- Incident management
- Problem management
- Capacity management
- Service asset and configuration management
- Service level management.

CONTINUAL IMPROVEMENT CAPABILITY

Supporting HMRC's people-development strategy, the project provided the opportunity to increase ITSM professional qualifications across the HMRC Applications Management team of 30 staff and across more than 113 Aspire Live Services staff. By April 2011, the team were all members of the British Computer Society (BCS), and over 90% had achieved Professional status. This level of expertise ensured the capability to maintain and develop the April ER improvements into the future.

END-USER SURVEY

The results of the regular Customer Satisfaction Survey completed by HMRC users evidenced the success of the implementation. The survey issued just after the ER showed the highest-ever overall score of 4.33 out of 6, and the IT Service Centre itself achieved 4.85, demonstrating the results of the journey of professional improvement that had been undertaken.

SERVICE MANAGEMENT

A formal post-implementation review (PIR) was carried out to identify any lessons learned or process improvements that may be needed. This covered IT and IT service management and fed back into service integration processes. When the project was recommended for triple certification, the auditors commented on the effectiveness and maturity of the service management system.

Conclusion

The benefits of the April 2011 ER spread far beyond the successful implementation of the IT systems, enabling HMRC to upskill its IT teams through professional ITSM qualifications and enhance existing IT processes right across operations. An accessible and sustainable framework was developed to mitigate and manage risks associated with future changes across this complex IT environment. The £8.2 million per annum reduction in IT operating costs was achieved by:

- Implementing a new payments engine, so that four legacy services could be disabled
- Decommissioning a 25-year-old legacy service
- Consolidating other services
- Improving user functions across the 48 services affected
- Updating technology across the IT infrastructure.

HMRC's senior IT management commented in their 'IT Celebrations' note for April 2011 that the ER gave 'greater business confidence in IT ability to deliver flawlessly' and that the 'work has made our systems more stable and up-to-date, improving the experience of HMRC for our customers'.

The future

Phil Pavitt, HMRC Director General, Change, Security & Information, concludes: 'The April 2011 experience, with the governance, processes and communication strategy that enabled its success, has resulted in a positive change in the business attitude to IT at HMRC. This has improved communication and created a greater willingness to collaborate – an essential foundation for future developments.'

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