



National Audit Office

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Office of Fair Trading

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# The consumer credit licensing service: the impact of legacy ICT

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# Summary

**1** The Office of Fair Trading (OFT) grants licences under the Consumer Credit Act 1974. It regulates organisations that offer consumers credit facilities and lending and debt advice. Approximately 25,000 credit licence related applications each year are processed by 110 OFT staff using the legacy PROMOD ICT system (referred to in this report as PROMOD). From April 2014, OFT will cease to exist. Most of its activities, but not credit regulation, will be transferred to a new Competition and Markets Authority. The government wishes to change the way consumer credit is regulated and to transfer responsibility for it to the Financial Conduct Authority. These proposals, which have been under consideration since 2010, have limited OFT's opportunities to plan for long-term improvements to the credit licensing service. Since April 2013 it has been clear that a new system will replace PROMOD from April 2014.

**2** OFT invited the National Audit Office to examine the way it manages the impact PROMOD has on the consumer credit licensing service. We found the system has a number of weaknesses that make it challenging to support, and cause periods of instability that disrupt the consumer credit licensing service. OFT has made strides to address these weaknesses, particularly after new leadership was appointed in corporate services in 2008 and in ICT in 2010, although there is more to do. We identified the following issues:

- The consumer credit licensing service is disrupted every month. Despite a total spend on PROMOD of £11.8 million to date, it has failed to mature into a stable system.
- OFT's ability to improve the consumer credit licensing service, through planning a PROMOD replacement, has been hampered since 2010 by the proposed changes to market regulation. This means that OFT can only consider at best 'fix and maintain' solutions in the short-term in response to a need to deliver value for money and improvements to system stability.
- PROMOD cannot be easily modified to support planned new ways of working. Therefore introducing improvements to the consumer credit licensing service can be challenging.
- The consumer credit licensing service is not protected by disaster recovery arrangements. It is unclear how long the service would be unavailable in the event of catastrophic failure.

# Part One

## The National Audit Office's assessment of government's legacy ICT

**1.1** We define legacy ICT as systems and applications that have been operationally embedded within a business function but superseded by newer and often more effective technologies or changed business needs, for example the need to deliver a new policy or deliver a service in a different way.

**1.2** Public services that rely on legacy systems face a number of risks. Availability can be impacted through unreliability or failure of worn components. Extending public services to digital channels as per the 'digital by default' strategy as set out in the Government Digital Strategy<sup>1</sup> can be constrained by legacy modes of operation - processing jobs as a sequence of batches instead of reacting in real time in a way users of digital services have become accustomed. Additionally, the improvement of public services through their redesign can take longer and be more costly because the skills and knowledge that understands the function of the legacy system have been lost.

**1.3** In its ICT strategy,<sup>2</sup> the government identified its legacy systems as acting as barriers to transforming public service delivery. These barriers stem from older systems that may use proprietary standards in their technical design that creates challenges when integrating data and processing with modern systems. Despite this, the government's stated preference is to extend the lives of such systems rather than face the risks and costs of replacing them. This was made clear in a response to the Public Administration Select Committee's (PASC) report on IT in government<sup>3</sup> which identified the often key role legacy systems play in public service delivery. PASC recommended that government identifies where and when investment is needed to migrate and replace legacy systems. In response, the government said it preferred to extend the life of legacy systems using software layers it called "wrappers" that would make legacy systems integrate more easily with newer systems. Subsequently the

<sup>1</sup> The Cabinet Office, *Government Digital Strategy*, November 2012, available at <http://publications.cabinetoffice.gov.uk/digital/strategy/>

<sup>2</sup> The Cabinet Office, *Government ICT Strategy 2011*, available at [http://www.cabinetoffice.gov.uk/sites/default/files/resources/uk-government-ict-strategy-2011\\_0.odt](http://www.cabinetoffice.gov.uk/sites/default/files/resources/uk-government-ict-strategy-2011_0.odt)

<sup>3</sup> House of Commons Public Administration Select Committee, *Government and IT - "a recipe for rip-offs": time for a new approach: Further Report, with the Government Response to the Committee's Twelfth Report of Session 2010-12*, Twentieth Report of Session 2010-12, HC 1724, January 2012

Cabinet Office issued further advice<sup>4</sup> providing more detail on the approach to handling legacy ICT.

**1.4** We examined how the public sector manages its legacy ICT systems in relation to service delivery. In particular, we explored public services that continue to be supported by legacy ICT for the foreseeable future.

**1.5** We applied our Business Analysis Toolkit<sup>5</sup> to assess the impact of legacy ICT on public service performance and costs. The toolkit focuses on three areas of analysis: the service model which describes the key components of service delivery; service performance over time, with associated costs and risks; and an enterprise analysis<sup>6</sup> measuring how mature the organisation is in managing, operating and maintaining the service, including its legacy ICT.

**1.6** This report is part of a series that examines how well government is managing those public services that rely on legacy ICT systems. There are four reports in this series:

- The consumer credit licensing service operated by the Office of Fair Trading using the 6 year old PROMOD system.
- The processing and payment of the state pension, a service delivered by the Department for Work and Pensions using the 26 year old Pension Strategy Computer System.
- The Value Added Tax (VAT) service operated by HM Revenue & Customs using a series of legacy systems that originally date back to a 40 year old VAT mainframe system.
- The prescription processing service operated by the NHS Business Services Authority using the 6 year old Capacity Improvement Programme system and its 17 year old legacy forerunner.

**1.7** In Appendix Four we show how this piece of work fits in with other National Audit Office publications on government ICT.

<sup>4</sup> The Cabinet Office, *Government Service Design Manual*, April 2013, available at <https://www.gov.uk/service-manual/technology/architecture.html#the-legacy-estate>

<sup>5</sup> A full description of the methodology used during our fieldwork, including the components of our Business Analysis Toolkit, can be found in Appendix Two.

<sup>6</sup> Our enterprise analysis is performed using a framework containing the seven key areas that most impact performance: strategy, governance, implementation, service management, people, process and technology. A full description of the enterprise analysis framework we applied during our fieldwork can be found in Appendix Three.

## Part Two

### The consumer credit licensing service

**2.1** In this part, we describe the role of the Office of Fair Trading (OFT), and the service it provides for consumer credit licensing.

#### The Office of Fair Trading

**2.2** OFT's aim is to make markets work well for consumers. It does this through enforcing consumer protection legislation and the Competition Act 1998. It also grants licences under the Consumer Credit Act 1974. This regulates organisations that offer consumers credit facilities, lending and debt advice. It also governs the way they conduct advertising, pre-contract disclosure and credit agreements.

**2.3** From April 2014, OFT will cease to exist. Most of its activities, but not credit regulation, will be transferred to a new Competition and Markets Authority. The government wishes to change the way consumer credit is regulated and to transfer responsibility for it to the Financial Conduct Authority. We found this has constrained OFT's ability to invest in its ICT and to plan for long-term service improvements. Moreover, OFT faces challenges agreeing support contracts with suppliers that expire during this period as it has to ensure neither of the new organisations is adversely affected financially or is contractually impeded when they come into existence.

**2.4** In 2011-12, OFT's net resource requirement was £71 million and it employed approximately 635 full-time equivalent individuals.<sup>7</sup> The 2010 government spending review settlement reduced OFT's budget by 25 per cent in real terms phased over four years, of which 2011-12 was the first year.<sup>8</sup>

**2.5** The Consumer Credit Group (CCG) within OFT is responsible for regulating the consumer credit market, including the granting of licences to traders.<sup>9</sup> In 2011-12, this service cost OFT £10.4 million to operate and was funded through licence fees rather than from taxpayers.

<sup>7</sup> Office of Fair Trading, *Report and Accounts 2011-12*, HC40, London Stationery Office, June 2012

<sup>8</sup> Office of Fair Trading, *Annual Plan 2012-13*, OFT1382, 2012

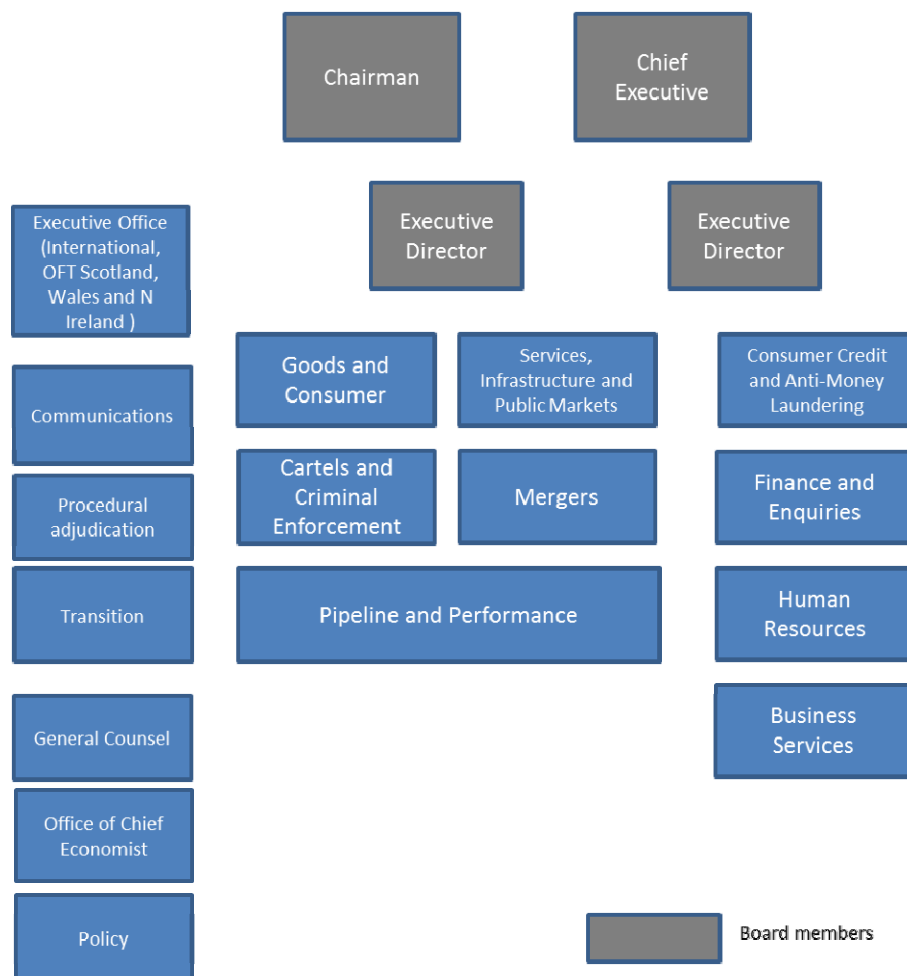
<sup>9</sup> Organisations require a credit licence if their activities include one or more of the following: selling goods or services on credit; leasing out goods for more than three months; lending money; arranging credit for others; offering hire purchase terms; collecting or purchasing debts; helping people with debts; advising people of their credit standing or administering credit agreements.

2.6 To support this service, OFT introduced PROMOD - a system that changed CCG's way of working from being largely paper-based and supported by a mainframe system - to being more automated. PROMOD is the responsibility of business services, OFT's ICT team. OFT also has a statutory duty under the Consumer Credit Act to make consumer credit information publicly available. It does this through an online service called the Public Register which details applications for, and holders of, consumer credit licences, both current and past. The Public Register's data are sourced from PROMOD.

2.7 The internal structure of OFT can be seen in **Figure 1**.

**Figure 1**

OFT organisation chart



Source: National Audit Office analysis of OFT information

NOTE

1 PROMOD is the responsibility of Business Services



## The service model

**2.8** The consumer credit licensing service is described in **Figure 2**.

**2.9** Its **customer** base consists of approximately 70,000 licensees plus members of the public who seek information from OFT and the Public Register.<sup>10</sup> In 2011-12, OFT received a total of 1.8 million unique visitors to its corporate and Public Register websites.<sup>11</sup>

**2.10** The main **channel** for applications is online. Applications can be made on both paper and via OFT's website with the overwhelming majority in 2011-12 (96 per cent) applying online. OFT's website uses forms that ask applicants a series of questions prompted by the answers given to previous questions.

**2.11** The **services** support the entire credit licensing process from routine application processing, dealing with enquiries and, handling appeals to the surrender of a licence when it is no longer wanted by the trader. The service also provides guidance to businesses, monitors compliance and, where necessary, takes enforcement action.

**2.12** The main **processes** that the licensing staff operate are handling fees and risk assessing traders against fitness and competency standards. Based on the outcome of the risk assessment, staff can investigate further, and may visit an applicant. There is also an adjudication process. Typically, low-risk applications take 25 working days to complete, while more complex or high-risk applications take 50 working days or longer.

**2.13** PROMOD is the main **technology** component of the service. It checks internal and external databases and applies risk rules to assess traders against their fitness to trade. The information for the Public Register is updated overnight from PROMOD and includes details of OFT's decisions to refuse applications, revoke consumer credit licences and information relating to any appeal to the First Tier Tribunal (Consumer Credit). Data are transferred between the web services and PROMOD using files in extensible mark-up language.<sup>12</sup> OFT uses a case management system to support enforcement activity and an interface exists between this and PROMOD for tasks such as generating a case number. Despite the presence of a link between the two systems, it is not sufficient to enable complete data sharing - duplicate data sets have to be independently maintained in both IT systems. Supporting documentation from credit licensees is stored in the RKYV document management system.<sup>13</sup> CGI Group

<sup>10</sup> An OFT estimate provided during an interview in June 2012.

<sup>11</sup> Cabinet Office, *Web metric: Central government websites 2011/12 in XLS format*, 2012, available at [www.cabinetoffice.gov.uk](http://www.cabinetoffice.gov.uk)

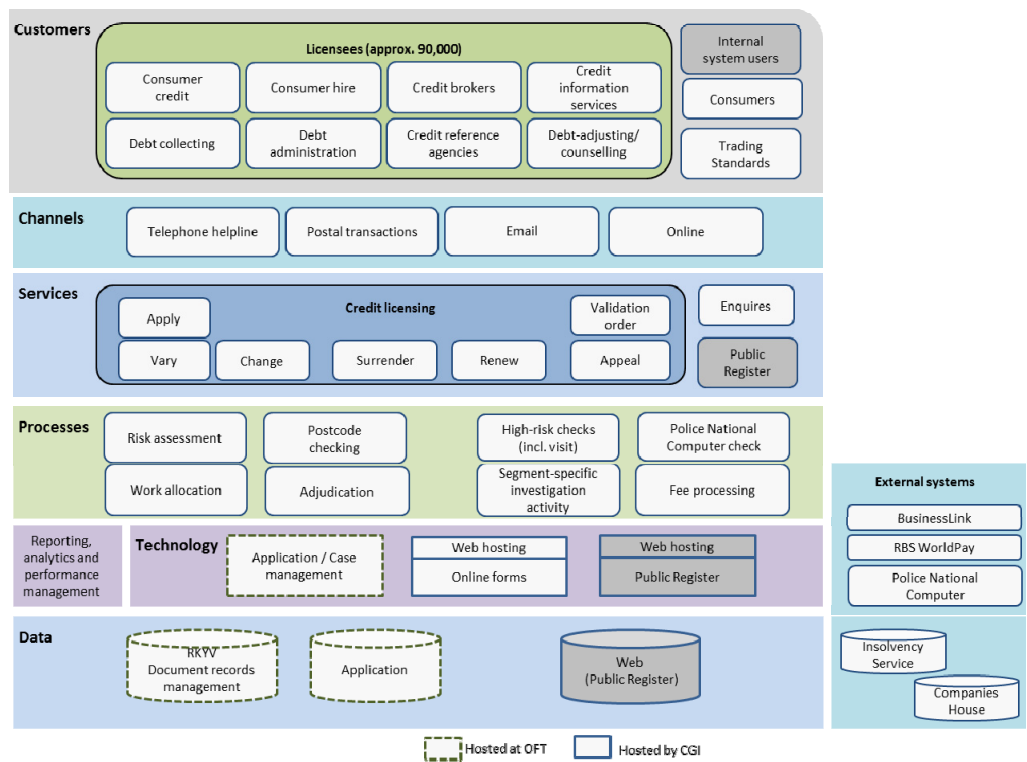
<sup>12</sup> Extensible mark-up language is an open standard for encoding documents in both human and machine-readable form.

<sup>13</sup> RKYV is a repository for storing and managing electronic documents.

Inc (referred to in this report as CGI) provides support for application management (including PROMOD), the case management system, other databases and web services.<sup>14</sup>

**Figure 2**

**Consumer credit licensing service model**



Source: National Audit Office analysis of OFT data

**2.14** Before April 2008, credit licences were issued for a five-year period and customers had to apply again to renew. 2011-12 is therefore the final full year in which five-year licences will be renewed (while a small number will be renewed in the first two quarters of 2012-13). In 2011-12, 5,661 licences were renewed in addition to 6,714 new licences being issued (**Figure 3**). Since April 2008, the majority of licences are indefinite. Indefinite licences carry a five-yearly maintenance fee. All fees for credit

<sup>14</sup> In May 2012, CGI Group Inc. acquired Logica PLC, the larger group now trades as CGI.

licensing and the amount and frequency of maintenance payments are approved by ministers from the Department for Business, Innovation and Skills. HM Treasury must also approve licence fees.

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### Figure 3

#### Consumer credit licence applications received and processed

Consumer credit licences	2010-11	2011-12	Cumulative (1976 to 2012)
Applications received	7,550	6,791	648,879
New licences issued (excluding renewals)	7,146	6,714	622,766

#### NOTE

1. The number of licences issued form part of an overall annual workload of approximately 25,000 credit licence related processing activities

Source: OFT Annual Report 2011-12

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**2.15** At the time of our fieldwork, the planning for the transfer of credit licensing had begun but a decision on whether PROMOD would continue to be the main system underpinning the service had yet to be made. Since April 2013 it has been clear that a new system will replace PROMOD from April 2014.

**2.16** A timeline of significant PROMOD developments is available in Appendix One.

## Part Three

### Financial and performance analysis

**3.1** In this part of the report, we analyse the financial and service performance of the credit licensing service operated by the consumer credit group in the Office of Fair Trading (OFT).

**3.2** We requested service, customer and system performance data for 2010-11 and 2011-12. We also requested service cost data for 2008-09 to 2013-14 and all legacy system cost data available. OFT was able to provide all the cost data requested but had no data on customer satisfaction with the credit licensing service or levels of availability of the PROMOD system.

**3.3** In 2005, OFT signed a seven-year contract with CGI to build and operate PROMOD. The system began operation in March 2007.

### Service and system performance

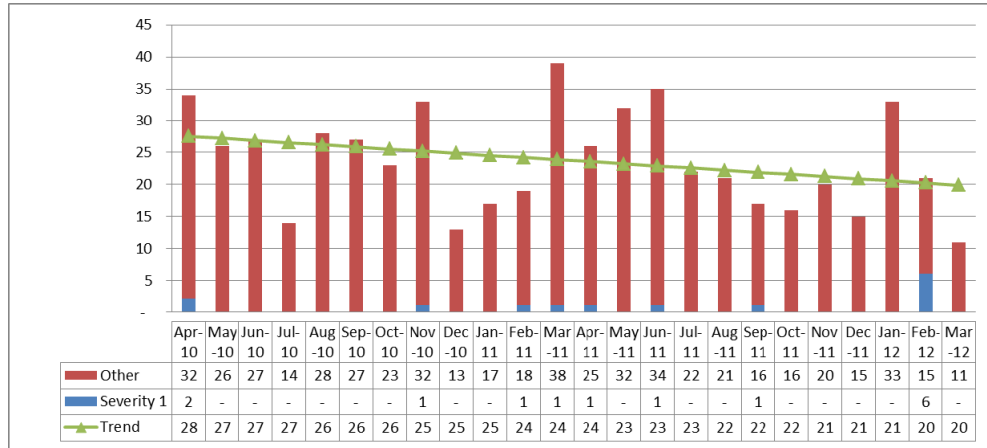
**3.4** We examined the performance of the PROMOD ICT system by looking at the number of incidents logged by OFT with CGI. When a staff member has an issue with PROMOD they email the business support team based within the Consumer Credit Group who provide first line support for the system. Where necessary, and particularly where an issue affects PROMOD as a whole, the business support team logs an incident with CGI. Incidents are graded from 1 to 4 with 1 being the most serious. A severity 1 incident is the complete loss of PROMOD.

**3.5** **Figure 4** shows that between April 2010 and March 2011, OFT logged an average of 25 incidents per month with CGI. The data shows that the number of incidents per month has, on average, decreased over time. However, performance in January and February 2012 was particularly poor and six severity 1 incidents were logged by OFT with CGI in February 2012.

**Figure 4**

**PROMOD incidents logged with CGI**

Between April 2010 and March 2012, OFT logged an average of 25 incidents per month with CGI.



Source: NAO analysis of OFT data

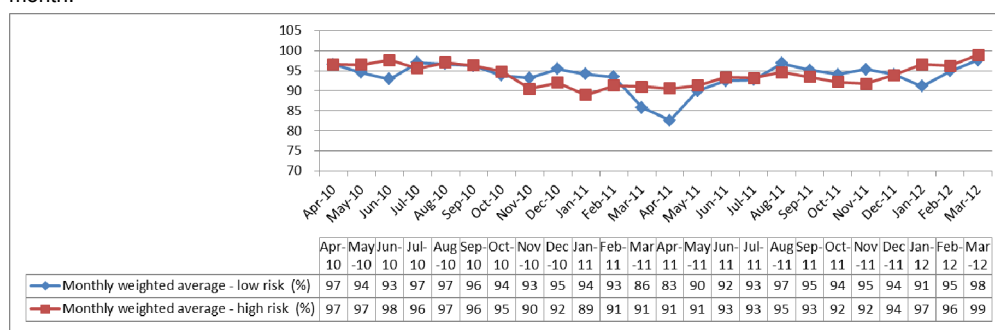
**3.6** OFT measures the performance of the credit licensing service by the time taken to process a customer transaction, which may be a licence application, variation or renewal. OFT has a separate target for high and low risk applications. OFT aims to process 75 per cent of high risk applications within 50 working days and 90 per cent of applications for low risk customers within 25 working days.

**3.7** The credit licensing service continues to process transactions on a timely basis for its users. Between April 2010 and March 2012, OFT met its targets for processing transactions almost every month (**Figure 5**). The high number of incidents with PROMOD in March 2011 (Figure 4) impacted on performance in March and April 2011, causing OFT to miss its target for low-risk customers, although it still met the target for high risk customers. Since May 2011, service performance has gradually improved, and the high number of incidents with PROMOD in January and February 2012 does not seem to have had a significant impact on overall service performance.

**Figure 5**

**Percentage of customer transactions processed within the target number of days**

Between April 2010 and March 2012, OFT met its targets for processing transactions in almost every month.



**NOTES**

- OFT reports processing timeliness separately for different types of transaction. We have weighted these using the overall number of transactions in a year.
- OFT aims to process 90 per cent of low-risk transactions within 25 working days and 75 per cent of high-risk transactions within 50 working days.

Source: NAO analysis of OFT data

## Financial performance

**3.8** The total cost of the credit licensing service in 2011-12 was £10.4 million, £2.4 million of which (23 per cent) was spent on PROMOD and other ICT.

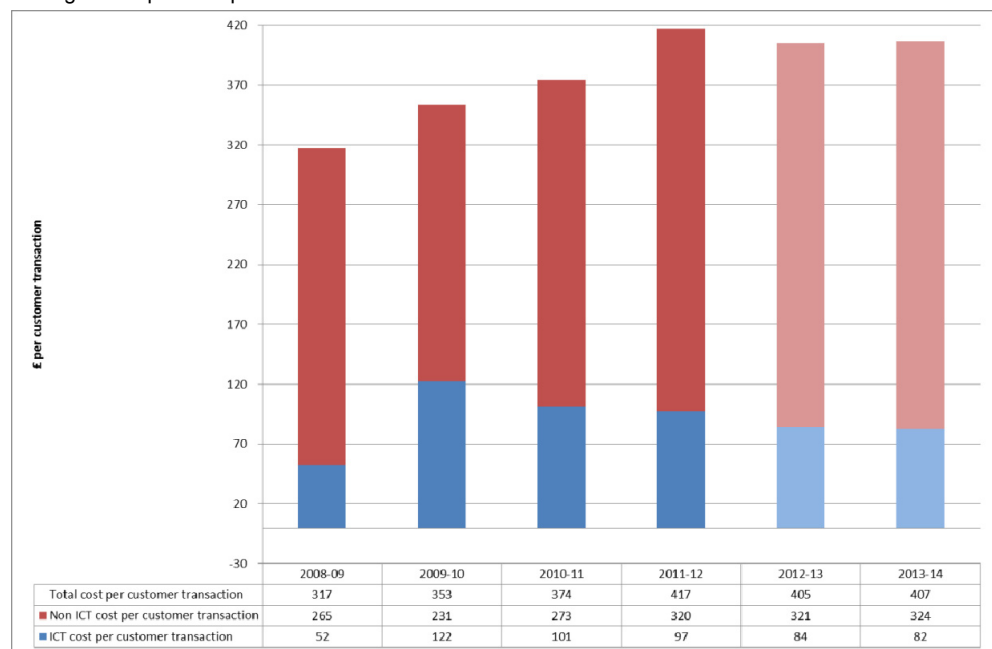
**3.9** Since introducing PROMOD, statutory changes have meant that the OFT has to carry out more rigorous checks of applications than it previously did. It also undertakes more compliance and enforcement activity. OFT could not fully split out this additional checking effort from the underlying transactional cost and therefore we could not determine whether legacy ICT was having an adverse impact on the cost of the service.

**3.10** The cost of the credit licensing service on a per customer transaction basis rose by an average of 10 per cent per annum between 2008-09 and 2011-12 (**Figure 6**). Between 2008-09 and 2011-12 the total cost of the credit licensing service (compliance, enforcement and transactional) rose by 2 per cent but the number of customer transactions declined by 23 per cent as the overall size of the licensed population fell.

**Figure 6**

**Cost of the credit licensing service per customer transaction**

The amount OFT spent on the credit licensing service on a per customer transaction basis rose by an average of 10 per cent per annum between 2008-09 and 2011-12.



**NOTES**

1. Costs for 2012-2013 and 2013-14 are OFT forecasts
2. Number of transactions for 2012-13 and 2013-14 has been estimated using the variation between 2010-11 and 2011-12.
3. Amounts have been adjusted for inflation using the retail prices index.

Source: NAO analysis of OFT data

**Cost of the PROMOD legacy ICT system**

**3.11** By March 2012, OFT had spent £11.8 million on the PROMOD system. (**Figure 7**). Between 2004-05, when the project to build PROMOD began, and 2008-09, when the project was completed, OFT spent £6.5 million on the initial build of the PROMOD system. It had also spent a further £2.4 million by March 2012 enhancing the system to ensure it complies with changes in legislation and interfaces with other OFT systems.

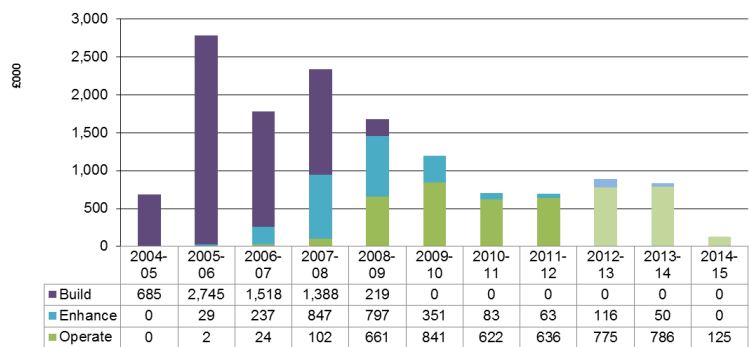
**3.12** OFT had spent £2.9 million operating the system by March 2012. Operational costs were low until PROMOD fully replaced its mainframe predecessor in 2008-09. There were some one-off operational costs in 2009-10 which may have been caused

by a need to respond to early problems with PROMOD. Excluding these one-off costs, PROMOD cost OFT an average of £648,000 to operate between 2008-09 and 2011-12.

**Figure 7**

**OFT spend on PROMOD, 2004-05 to 2014-15**

OFT had spent £11.8 million on the PROMOD system by March 2012



**NOTES**

1. Costs for 2012-2013 onwards are OFT forecasts to the end of the current contract.
2. Costs have been adjusted for inflation using the retail prices index.

Source: NAO analysis of OFT financial data

**3.13** PROMOD has been heavily tailored during its life and is now running a version of the core application software, unsupported by its vendor. OFT has not done a formal evaluation of whether upgrading to a non-legacy system would be more efficient because of the uncertainty caused by the government's proposals to change the way that consumer credit was regulated and the transfer of responsibility to the Financial Conduct Authority.

**3.14** The original contract between CGI and OFT expired on 30 June 2012. OFT awarded a fresh two-year contract to CGI beginning in July 2012. This was as a single supplier due to OFT's concerns about the capacity of other suppliers to support the heavily tailored application. OFT made the decision not to follow competitive tendering procedures after consideration of a wide range of options and in the context of proposed regime changes. HM Treasury approved this approach in March 2012. HM Treasury informed us that the specific nature of this case meant it offered the least risk of the new system not being delivered in time and offered the best total value for money of the options available; crucially this was seen to be more cost-effective than an open tender.



**3.15** The new contract will see the average operational cost of the PROMOD system rise to £781,000 – an increase of 20 per cent. OFT has negotiated additional contractual safeguards over the performance of CGI, such as system availability targets, in return for the increase in operational cost.

## Part Four

### Our enterprise analysis of the consumer credit licensing service and the management of PROMOD

**4.1** In this part, we summarise our findings of our enterprise analysis. Each section highlights a key finding and the scores we have allocated the Office of Fair Trading (OFT) as part of our assessment. Our scoring runs within the range of 1 to 5, the higher the number the better the performance. We apply two sets of scores, which represent where the organisation is currently, and where we believe its performance will be in the future, based on the evidence we have seen.

**4.2** Soon after PROMOD became operational in March 2007, a backlog of credit licensing cases built up as OFT staff struggled with the new system.<sup>15</sup> These delays took almost two years to be cleared. PROMOD continues to present a challenge to OFT, often disrupting the service through periods of instability. Few of OFT's current technical staff were working at OFT when PROMOD was developed, but they told us they believed PROMOD's current systemic weaknesses were as a result of failings in project management during its development and insufficient engagement with stakeholders during requirements gathering.

**4.3** We found OFT has made strides in attempting to stabilise PROMOD, but the proposed landscape changes are constraining OFT's ability to plan a long-term solution. In managing the legacy challenges presented by PROMOD, OFT has learned a number of lessons including the need to strengthen governance, build more collaborative supplier relationships and acquire more skills and capability. OFT began to address this last point in 2008 with the appointment of a new executive director of corporate services, followed by a new director of business services in 2010. This led to the acquisition of more technical skills that could both provide greater challenge to OFT's suppliers and provide more understanding of the wider systemic weaknesses present in its ICT function and estate. In this section, we expound on these issues as we report the findings from our enterprise analysis. While we found an improving picture, we also found the proposed landscape changes to consumer credit licensing creating uncertainty within OFT, limiting strategic options and making it difficult to determine whether further significant investment in PROMOD is prudent.

<sup>15</sup> Better Regulation Executive, Department for Business, Enterprise & Regulatory Reform and the National Audit Office, *Effective inspection and enforcement: implementing the Hampton vision in the Office of Fair Trading*, March 2008.

## Strategy and business model

Key finding	Our assessment	
	Now	Future
OFT will not invest further to either upgrade PROMOD or plan a replacement.	3	2

**4.4** Despite PROMOD causing disruptions to the credit licensing service, OFT has decided not to invest in a replacement. The proposal to change the way that consumer credit is regulated and transfer responsibility for that regulation has created significant uncertainty since it was first announced in 2010. Since April 2013 it has been clear that a new system will replace PROMOD from April 2014.

## Governance and architecture standards

Key finding	Our assessment	
	Now	Future
OFT's oversight of its ICT portfolio had inadequate controls, which only began to be addressed after the appointment of new leadership.	1	2

**4.5** OFT's oversight of its ICT portfolio had inadequate controls, which only began to be addressed after the appointment of new leadership. Weak governance and a lack of rigour around the oversight of lifecycle changes to PROMOD led to critical activities being attempted without proper impact assessments and OFT not having a clear view of costs. Governance began to be strengthened following the appointment of new heads of corporate services and ICT. This led to a major reorganisation of business services designed to provide clearer ICT accountability. Work began on a review of existing contractual arrangements along with initiatives designed to develop a more collaborative working relationship between OFT and CGI, including developing a common aspiration for the service. A change approval board was established with the aim of prioritising changes in business requirements and providing greater rigour. Also, a business services steering group, comprising front-line and back office directors, began to report back on existing services. Governance was further formalised with the development of a three-tier management structure enabling OFT and CGI to engage and assess service performance at a strategic, contractual and operational level. We believe these changes have begun to strengthen both OFT's oversight and control.

**4.6** PROMOD's bespoke design along with the government's proposed landscape changes required OFT to take a risk-based approach to the procurement of its application management support arrangements. Support for OFT's web services and applications, including PROMOD, were provided through two contracts with CGI. In preparation for their expiry in June 2012, OFT launched the ICT Contracts Programme in 2010 to improve the efficiency of OFT's ICT provision. The programme had to consider the proposals to change the nature of credit regulation, including shifting responsibility to another body and the challenge suppliers would face taking on PROMOD, due to its bespoke design. In 2011, OFT worked closely with HM Treasury preparing an options appraisal and cost benefit analysis. The chosen procurement route was a tactical two-year support contract with annual extensions using two procurement frameworks.

**4.7** However, in January 2012, a Gateway Health Check of the ICT Contracts Programme found the rationale for this decision was "impacted by a lack of clarity on the business case, objectives and key drivers". It recommended further consideration including exploring the possibility of extending the existing contracts. OFT obtained legal advice on its ability to extend the existing contracts and the other procurement options available to it. The advice received made it clear OFT would be exposed to risks if it either extended the existing contracts or awarded a contract without following regulated procurement procedures. OFT's board considered the risks and further discussions were held with HM Treasury. Once HM Treasury approval of the proposed approach was obtained, OFT proceeded to procure support of its web services through a framework, but used a single tender action to re-engage CGI for application support (including PROMOD).

**4.8** We found no evidence of an enterprise architecture approach within business services. Moreover, PROMOD and its technical architecture have historically been poorly documented.

## Implementation

Key finding	Our assessment	
	Now	Future
PROMOD's implementation resulted in an unstable system that failed to meet the expectations of OFT's users.	1	1

**4.9** Our financial analysis found the most significant investments in enhancing PROMOD were made directly after implementing it, suggesting the system was not fully ready when it went live in March 2007. This was confirmed during our audit by an options paper, prepared by business services, which reviewed procurement and contracting options. This found PROMOD forced OFT users to make a large number of change requests to enhance its functionality.

**4.10** OFT's ability to make the credit licensing service more efficient is constrained by the legacy application component of PROMOD. In April 2010, an external review of the efficiency and effectiveness of credit licensing and intelligence-led investigative activities was commissioned. The report made a number of recommendations that were implemented by OFT. Some processes however, such as moving from small dedicated teams to larger multi-skilled teams able to process applications from beginning to end could not be supported by the current version of the application and so were not implemented.

## Service management

Key finding	Our assessment	
	Now	Future
Service management does not follow ITIL best practice, leading to weaknesses in the management of service incidents.	 1	 3

**4.11** OFT's IT strategy, covering the period between 2011 and 2014, highlights the need to work more to ITIL service management standards.<sup>16</sup> We found the way OFT handles incidents with the credit licensing service is not in line with ITIL best practice. When a member of staff within OFT experiences an unexpected problem with PROMOD, details are emailed to the business and area support team. Emails between this team and the user can often resolve the issue. If resolved, the issue is considered closed and the email is moved to a folder for closed calls. Where the problem cannot be resolved, a call is raised on the CGI helpdesk. This approach does not follow best practice, as the cumulative total of incidents is spread between the business and area support team's email folders and CGI's helpdesk. We also found a lack of systematic root cause analysis or any work to understand trends in the incidents. When talking with users, they said some incidents were as a result of deficiencies in staff training and their understanding of the system. The fragmented way business services manages incidents makes it difficult to determine how many were due to such training needs, and how many were due to system fragility.

**4.12** Our analysis found business services has made strides to both enhance its management of suppliers and the services provided to OFT. In 2010, OFT launched the Business Services Improvement Programme (BSIP) with the aim of addressing capability shortfalls, system resilience and the efficiency and effectiveness of ICT at OFT.

<sup>16</sup> Information Technology Infrastructure Library (ITIL) is a set of best practice procedures and tasks for IT service management. It provides a framework for planning, changing, delivering and supporting IT services.

## People

Key finding	Our assessment	
	Now	Future
Business services has historically lacked key technical skills in requirements gathering, system architecture, project management, commercial and contract skills.	2	3

**4.13** Business services has historically lacked technical and commercial skills, which has diminished its ability to act as an intelligent customer. An internal paper, prepared for the information and communications technology contracting strategy in August 2011, highlighted this long-term lack of capability and the difficulties in being able to technically challenge its suppliers. OFT reviewed its service delivery options alongside its available skills as it approached the end of its main ICT outsourcing contract. As a way forward it chose a tactical approach, which focused on strengthening its contract management. In 2010, an experienced civil servant was appointed to manage the relationship with CGI. OFT also requested further capability from CGI who responded by appointing a more experienced individual in the role of service delivery manager.

**4.14** We also found capability expanding in other areas such as the IT helpdesk, applications management and in the network team. Some key roles such as the ICT strategy lead, however, are performed by contractors. This presents a risk to the organisation, as such individuals can leave at short notice. Our review of OFT's corporate risk register from June 2012 found that the organisation gave staffing issues a risk rating of amber. It also notes the forthcoming landscape changes are increasing the level of uncertainty among staff. Consequently, OFT has recognised the need for formal transition planning to the new organisation, better communication with staff, being prepared to fill essential roles with short term temporary resources and an increase in succession planning.

## Process

Key finding	Our assessment	
	Now	Future
The credit licensing service has no disaster recovery capability.	1	1

**4.15** We found the credit licensing service lacks a disaster recovery capability. In the event of a catastrophic failure, which prevents PROMOD from continuing to function, there is no indication how long the service would be unavailable before it could be restored. This is despite a disaster recovery service being a component of the original CGI contract. OFT decided to remove this from the new contract as it considered the original contract clause to be ineffective. It was noted in an internal paper produced in March 2012 that OFT was paying £19,000 to CGI in 2011-12 for this undelivered capability.

**4.16** We also found a number of other process weaknesses such as no routine patching of the software elements of the PROMOD infrastructure, no configuration management for enforcing version control of the software components, and poorly maintained system documents.<sup>17</sup>

**4.17** PROMOD has not achieved any of government's security accreditation standards, and the lack of patching means the application and operating system has not had any security-related service packs applied. We also reviewed the results of a web application security testing exercise by Internal Audit on behalf of OFT in April 2012. This revealed that OFT's website was vulnerable to "cross- site scripting".<sup>18</sup>

## Technology

Key finding	Our assessment	
	Now	Future
The application, database and system software components of PROMOD are no longer supported by their vendors.	2	3

**4.18** The consumer credit licensing service is at risk from the applications and components that make up PROMOD being no longer supported by their vendors. The system consists of a case management solution from LexisNexis called Visual Files. It manages licensee data using Microsoft's SQL 2000 database, residing on a Windows 2000 operating system. Microsoft BizTalk servers integrate the system and allow it to connect to the wider enterprise. Now they are no longer supported, upgrades with bug fixes and quality improvements are no longer supplied nor are patches that address security weaknesses. Moreover, there is no assistance available from vendors if OFT wants to improve the licensing service and it experiences challenges integrating PROMOD with newer systems or data sources.

<sup>17</sup> Patching is the application of additional software to fix existing problems.

<sup>18</sup> Cross site scripting is a web site security vulnerability that enables an attacker to add malicious content to a website that gives them unauthorised access to sensitive areas of the system.

**4.19** The weaknesses in PROMOD that lead to disruptions to the consumer credit licensing service stem in part from an under investment in technology along with process weaknesses and a lack of capability. In 2010, a storage device failed and disrupted services across OFT. In response the BSIP was launched, which included an IT health check to provide OFT's leadership team with a snapshot of the current state of the ICT estate. The review found:

- poor housekeeping around the management of disused staff user accounts;
- unreliable components;
- similar infrastructure components using different operating systems, patching and service pack versions;
- systems configured in ways at odds with the advice of the vendors;
- email systems at their storage limits; and
- no policies in areas such as document management and data retention.

**4.20** It was within this environment that OFT had developed and deployed PROMOD. As part of the BSIP, OFT continues to address these wider systemic issues but the government's spending review settlement targets for the next four years means a challenging environment for ICT investment.



## Part Five

### The lessons learned from the impact of legacy ICT on OFT's consumer credit licensing service

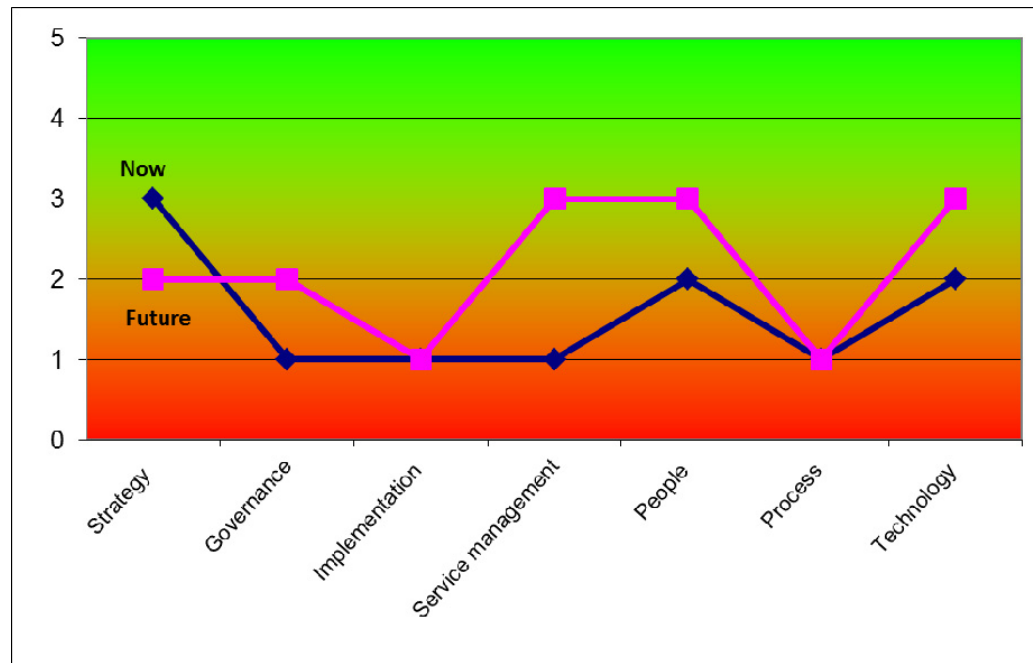
**5.1** In this final part of the report, we use the results from our service, financial and enterprise analysis to draw out the key lessons the Office of Fair Trading (OFT) has learned from the impact of legacy ICT on the consumer credit licensing service.

**5.2** This case study is an example of how a relatively modern system can develop legacy characteristics almost straight after it goes live, due to a poorly managed procurement. It also demonstrates how OFT, when faced with this situation, recognised the importance of strengthening senior business and technical leadership. From this first step, the risks facing the business could be identified and OFT could improve technology, processes, capability and ways of working.

**5.3** From our enterprise analysis and scoring assessment, we believe OFT will improve in some key areas over its remaining life (**Figure 8**). We see this as continuing the work already started by business services and the lessons that have been learned. In **Figure 9**, we outline these key lessons.

**Figure 8**

Our enterprise analysis performance scores suggest improvement in some key areas is achievable



Source: National Audit Office analysis

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## Figure 9

### Lessons from PROMOD

Lessons	Commentary
<b>Legacy characteristics emerge early from a system when the procurement is poorly managed</b>	A lack of strategic leadership at the time of the procurement meant OFT developed the system in an environment where there were no use cases or a target-operating model. <sup>19</sup> PROMOD's procurement delivered a highly customised system that made operating and maintaining it complex.
<b>The need for senior management leadership and engagement</b>	OFT refocused priorities and processes following the appointment of an executive director of corporate services and new leadership to head business services. Once better engaged, senior management recognised the systemic weaknesses and could release funds to address the key risks.
<b>Access to key project and technical skills</b>	Business services lacked adequate technical and contract management skills until 2010. Operating within this environment, PROMOD's components failed to be patched or upgraded and there were no testing facilities. Strengthening capability - with both permanent and contractor resources - enabled the replacement of unreliable components and the redesign of weak and broken processes.
<b>Strong commercial experience is needed to challenge the supplier</b>	Once commercial skills were strengthened, OFT recognised there was a need to improve the service it was getting from its supplier, in particular in its response to incidents that affected service. OFT requested key personnel be replaced within the supplier and jointly worked on an improvement plan. OFT also made contact with other public sector bodies to share best practice around supplier management.
<b>Avoiding supplier 'lock in'</b>	PROMOD is both highly customised and poorly documented, resulting in OFT being heavily dependent on CGI for the service. OFT assessed the risk of moving PROMOD to a different supplier but considered it too expensive and risky. To help the situation, OFT focussed on strengthening its ability to technically challenge CGI and structured the next supplier contract in a way that built on the lessons learned from the mismatch of incentives in past arrangements.

Source: National Audit Office analysis

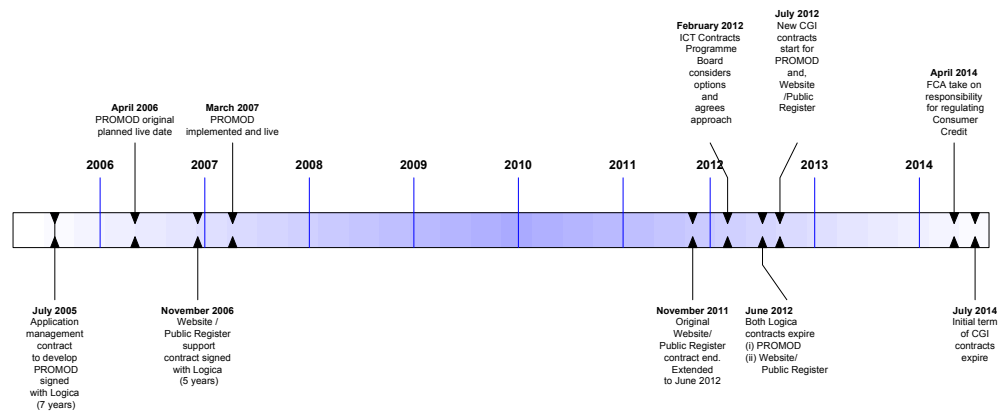
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<sup>19</sup> A use case specifies how a role within an organisation interacts with a system.

# Appendix One

## PROMOD timeline

The key milestones in the history of PROMOD and the changes to the credit licensing regime



Note:  
In May 2012, CGI Group Inc, acquired Logica PLC, the larger group now trades as CGI

Source: National Audit Office analysis

# Appendix Two

## Methodology

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**This section describes the methodology we used for our fieldwork, which centred on our business analysis toolkit. This consists of three elements: financial and quantitative analysis, analysis of the service model and application of our enterprise analysis framework. (A full description of our enterprise analysis framework is in Appendix Three). The study team was composed of NAO staff supported by a secondee from Risk Solutions who led the financial analysis.**

### **Method**

Financial and quantitative analyses including:

- Interviews with financial and operational staff
- Analysis of investment and spend data.
- Analysis of service performance and service reporting data

Analysis of service model including:

- Semi-structured interviews with service and contract management staff, technical stakeholders and representatives from suppliers
- Document review of ICT and contracting strategies, reviews of the ICT estate, technical descriptions and publicly available service information

Application of our enterprise analysis framework including:

- A workshop of key stakeholders where they self-assessed and scored themselves against the components of the framework
  - Semi-structured interviews with corporate service leaders, senior technical staff, system users drawn from OFT staff and representatives from the suppliers
  - Data and document review that encompassed key contracts, technical and design documentation, management information, minutes from service and risk forums, risk registers and service impacting incidents
  - A 'wash up' workshop where the results of National Audit Office fieldwork findings were played back to senior stakeholders and compared with self-assessment
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# Appendix Three

## Enterprise analysis framework

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### Good practice in the management of legacy ICT

#### Strategy and business model

**Strategy and business model** There is a clear strategy in place for the service, which the organisation regularly reviews and updates to reflect changes in its business environment and/or exploit new technologies.

**Business case and funding** Business case(s) for replacement reflect good practice (e.g. *HM Treasury Green Book*), are regularly reviewed and challenged, and opportunities are exploited and managed.

**On-going costs** Costs of the services are fully understood and managed against a budget and prioritised business demands. Costs are challenged and optimised, and the value of asset/investments is fully exploited.

#### Governance, architecture and standards

**Technical governance** Technical governance arrangements provide strong and effective oversight and direction on the ICT portfolio and the lifecycle of the legacy system. Regular meetings take place between business and IT to identify and prioritise changes in business requirements and legacy ICT capabilities, risks and issues, opportunities and threats.

**Enterprise architecture** There are clear links and strong alignment between the IT strategy and business strategy, and the legacy system is supported by a documented comprehensive technical architecture.

**Data quality and assurance** A clear and consistent strategy for data standards and architecture ensures a coordinated approach to continually improve the quality of information provided by the legacy system. The sources of data are well understood and business users have trust in the information.

**Risk management** Risk management processes ensure that the business risk appetite is documented and legacy ICT and information assurance related risks are identified and regularly reviewed, documented and managed at a sufficiently senior level, with mitigating arrangements agreed. Key stakeholders have clear visibility of the level of risk exposure.

#### Implementation

**Lifecycle management** The system is readily adaptable to changing business needs and evidence of structured development and enhancement throughout its life can be seen. Testing plans and procedures are designed in partnership with business, release management processes are in place and system documentation is current, maintained and available. Software media and licence codes are available and regularly confirmed as operational.

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**Decommissioning legacy** All legacy systems have been identified and effective transition arrangements, accountabilities and responsibilities have been agreed. All legacy data have been identified, cleansed and mapped to the new solution and decommissioning costs have been identified.

**Retaining legacy** There is a legacy systems strategy in place that identifies what the business defines as legacy, the contract lifetimes and the anticipated technology lifetime of each architecture component, service and application, and the factors to be considered in making retirement/retain decisions.

**Service management** **Service performance** There is clear definition of the service that is continually reviewed and improved in partnership with the end-users and/or customers, and service delivery performance is regularly compared with target performance and good practice benchmarks. The dependency of the legacy system on service performance is known, with risks and issues managed effectively.

**Management of supplier services** Outsourced services are actively managed and regularly market tested to ensure value for money, the relationship is collaborative and information about future changes to the legacy system or the service are discussed between both parties.

**Change management** An agreed multi-user forum exists for engaging in high-level strategy, performance management and service evolution discussions, which inputs to management decisions about future direction and investment. There is a tailored organisation wide training programme with clear success criteria being monitored.

**People** **Internal workforce** The staff responsible for the on-going operation of the legacy system have the necessary skills and undertake training to perform their role. Training covers awareness of developments in the market and relevant associated technologies. Recruitment, retention and development activities are aligned with the needs of the service and its customers. Succession plans are in place for all key roles.

**Supplier capability** Reliance on service providers and contractors involved in the on-going operation of the legacy system is known and actively managed. There are regular reviews of the ability of service providers to continue to support the legacy system throughout its projected lifetime, and there are agreed solution roadmaps in place.

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<b>Process</b>	<p><b>Business processes</b> Development or improvement of business processes is not hindered by the capabilities of the legacy system, and/or new processes required by the business are assessed against the capabilities of the legacy system and failure to meet new requirements triggers a system review.</p> <p><b>Technical processes</b> Data management processes are in place and owned by the business and are applied to the legacy system. Backup and recovery capability of the legacy system is regularly reviewed and tested, and adherence to agreed recovery objectives is actively measured. Access management controls are implemented and monitored with exception event procedures in place.</p> <p><b>Security processes</b> The legacy ICT system meets government security standards (accreditation) in a cost-effective manner and its security controls ensure the confidentiality, availability and integrity of data. External security risk assessments are carried out regularly. No bespoke security systems or processes are required.</p>
<b>Technology</b>	<p><b>Applications</b> The legacy ICT system fully integrates with the wider ICT environment using standard protocols or common application programme interfaces. Software versions are current and fully supported with plans in place for future upgrade.</p> <p><b>Performance.</b> The availability and performance of the legacy system is captured as part of service performance measurement.</p> <p><b>Infrastructure</b> The solution is sufficiently scalable to allow the addition or removal of components to meet service demand or enhanced to meet changing business needs. A regular patch cycle schedule is in place to apply functional and security patches systematically. Test facilities exist that replicate the production environment exist or can easily be created and removed as required.</p>

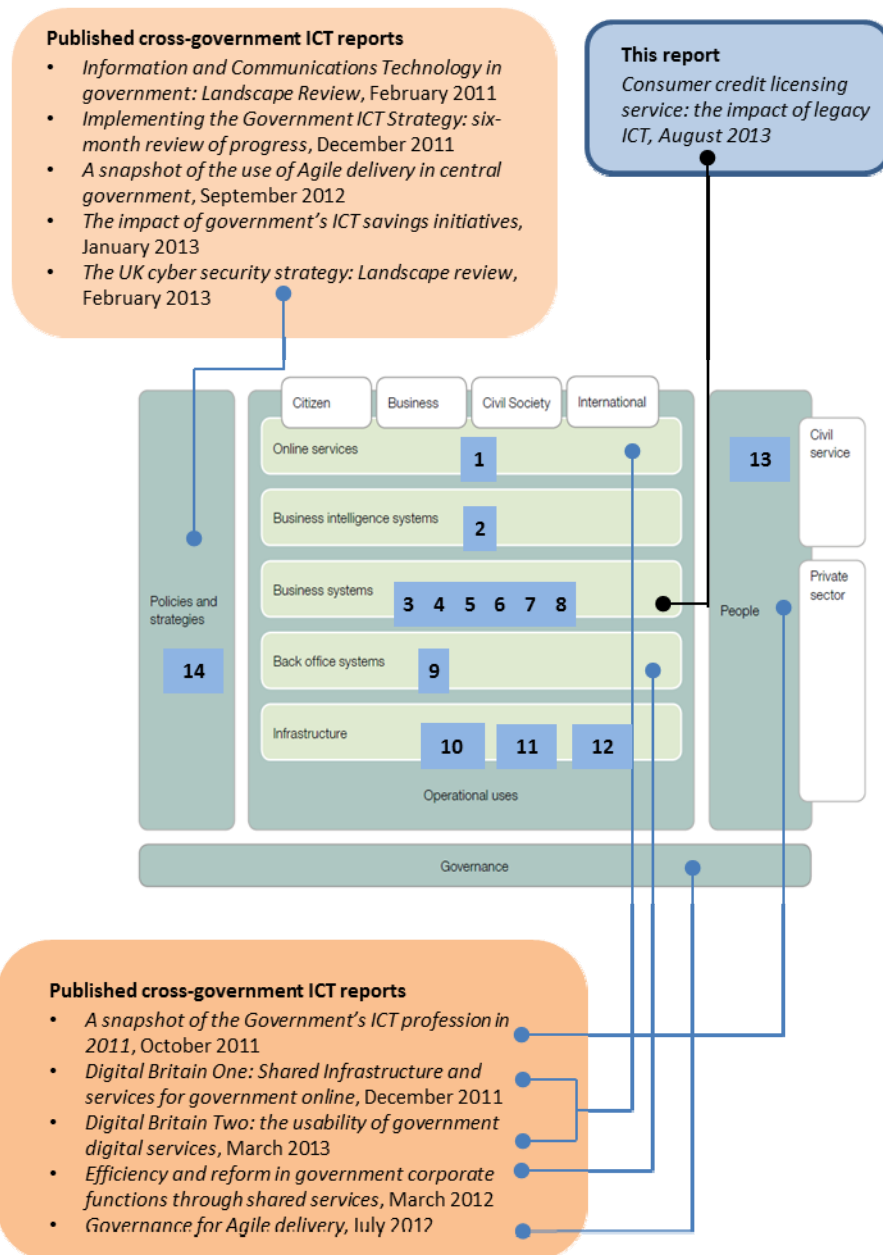
Source: National Audit Office enterprise analysis toolkit

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# Appendix Four

## Published client reports focusing on ICT



Notes:

1. For published client reports focused on ICT see next page

Source: National Audit Office

## **Published client reports, focused on ICT**

### **Online services**

**1** HM Revenue & Customs: *The expansion of online filing of tax returns*, November 2011.

### **Business Intelligence systems**

**2** Ministry of Defence: *The use of information to manage the logistics supply chain*, March 2011.

### **Business systems**

**3** Department of Health: *The National Programme for IT in the NHS: an update on the delivery of detailed care records systems*, May 2011.

**4** Department for Communities and Local Government: *The failure of the FiREControl project*, July 2011.

**5** The Crown Prosecution Service: *The introduction of the streamlined process*, November 2011.

**6** Department for Work and Pensions: *The introduction of the Work Programme*, January 2012.

**7** Department for Work and Pensions: *Child Maintenance and Enforcement Commission: cost reduction*, February 2012.

**8** HM Revenue & Customs: *The Compliance and Enforcement Programme*, March 2012.

### **Back-office systems**

**9** Department for Business, Innovation and Skills: *Shared services in the Research Councils*, October 2011.

### **Infrastructure**

**10** Department for Environment, *Food and Rural Affairs: Geographic information strategy*, July 2011.

**11** Home Office and National Policing Improving Agency: *Mobile technology in policing*, January 2012.

**12** Department for Culture, Media and Sport: *The rural broadband programme*, July 2013

**People delivering and operating government ICT**

**13** Department for Business, Innovation and Skills and Skills Funding Agency: *Adult apprenticeships*, February 2012.

**Policies and strategies for information and technology and business**

**14** Department for Environment, Food and Rural Affairs and the Animal Health and Veterinary Laboratories Agency: *Improving the delivery of animal health and welfare services through the Business Reform Programme*, July 2012.



National Audit Office