



INSTALLING NEW DRIVERS:

How to improve government's use of IT

Michael Hallsworth, Gareth Nellis and Mike Brass

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Executive summary

Now, more than ever, government needs to demonstrate that technology can fulfil its strategic purposes

This report examines whether the 'centre' of government (the Cabinet Office, Treasury and Number 10) is able to ensure that IT enables government to meet its objectives effectively and efficiently.

As part of the Institute for Government's wider Reshaping the Centre project, the report focuses on the current combination of organisations, processes, responsibilities and funding. It does not offer a comprehensive assessment of how government uses information technology in general.

The report suggests that there are two main reasons for the centre's involvement in IT.

- 1) The centre is well placed to ensure that IT contributes to achieving government's overall strategic goals effectively. For example, the recent Transformational Government agenda aimed to use technology to shape services around individuals, rather than departments.

Creating pan-government ambitions for IT in this way invites a central coordinating role to set goals, oversee progress, and resolve the incoherence between departments that limits effectiveness. The centre has had undoubted successes in this coordinating role, and has made major progress since the Transformational Government strategy was launched. Nevertheless, many ambitions for IT-enabled public services remain unfulfilled a decade on – while the achievements to date have come at considerable cost.

- 2) The centre can make government's use of IT more efficient by identifying areas where components could be reused, duplication could be eliminated, and collaboration could make full use of the state's buying power. The Operational Efficiency Programme (OEP) has estimated that £3.2 billion (20%) of public sector expenditure could be cut by doing so.

Despite the savings already achieved in areas like shared services, the centre needs to do more: there is wide variation in IT expenditure between public sector bodies, while departments are not taking full advantage of the possible savings from greater use of online contacts with customers.

IT in government now faces considerable challenges – fiscal pressures will demand greater efficiency (and may make IT projects appear as attractive options for spending cuts), while scepticism relating to data security and IT-enabled business change projects needs to be overcome. Now, more than ever, government needs to demonstrate that technology can fulfil its strategic purposes. In such a context, the centre has a crucial role to play. But does it have the authority and capabilities needed to fulfil such a role?

This is not a new question - the centre has been involved in governing IT for the past forty years, and we briefly trace this history, concluding that we are currently in a period of "collegiality": with power dispersed between departments, the 'centre' attempts to coordinate through persuasion and consensus rather than formal mandates. Indeed, the CIO Council, the main central decision-making body, has little capacity or authority to enforce its decisions – even if they could significantly improve the efficiency or effectiveness of government.

The centre does perform many aspects of its restricted role well: the CIO Council, which draws together departments' CIOs from across government, has brought significant benefits in terms of sharing best practice and identifying the crucial issues and agendas facing government. The difficulties arise with implementation: as one interviewee put it, 'so everyone agrees "in

principle” – but then what?’ In other words, the current arrangements are not sufficient to tackle the issues that are controversial, conflict with departmental priorities, require initial funding, or whose benefits do not immediately accrue to the actors involved.

Why is this? We identify five main barriers to greater coordination of IT:

1. Competing departmental priorities.

Individual departments have a range of competing priorities, which routinely eclipse cross-government initiatives. Political and financial accountability resides within departments. Unfortunately, the department’s leadership may not fully appreciate how IT can contribute to achieving wider strategic goals – whether owing to a lack of interest or a failure of communication by the CIO. Furthermore, departments often have an inherent dislike of edicts from the centre. Even where the benefits are clear, departments may feel reluctant to relinquish control over risks in the name of intra-governmental cooperation.

2. Dependence on individual CIOs

The CIO council arrangement assigns significant agency to CIOs, which may increase the variability of departments’ engagement with cross-government agendas. This is because the power of individual CIOs at any given moment is affected by multiple factors: the type of work carried out by the department, the structure of the departmental ‘family’, the resources and formal roles given to the CIO, and their personal relationships. Since some CIOs can struggle for influence in their department, the impact of the CIO Council’s decisions can vary between departments.

3. The resources and reputation of the centre

The IT function in the Cabinet Office is directly responsible for a tiny fraction of total government spending on IT. This lack of disbursement power creates a relationship of dependence between the centre and departments, making it easier for departments to simply ignore requests from the centre. Many interviewees indicated that the centre often does not possess sufficient information to analyse IT in government effectively. Furthermore, it may be that the centre could benefit from a higher concentration of IT expertise to analyse and judge such data. Finally, observers lacked confidence in the Cabinet Office’s delivery capability to fulfil its role in overseeing IT initiatives. Interviewees were, however, positive about the personal abilities of the Government CIO in developing consensus and exerting ‘soft power’ through personal relationships.

4. Lack of political integration

Ministers frequently do not pay sufficient attention to the IT dimension of policy announcements. Coupled with the overriding importance attached to individual ministers’ initiatives, this can lead to the wheel being reinvented across government. IT is often seen as a political after-thought because it enters the decision-making process too far ‘down-stream’, when plans and deadlines are already fairly definite. Furthermore, the e-government agenda has been split across departments and ministers, or combined with ministers’ other, unrelated duties.

5. Central expertise in procuring and managing IT projects does not always count.

Although the Office of Government Commerce is considered to provide fairly good advice on government IT procurement, issues arise when trying to ensure departments act on its direction. Currently, the centre imposes relatively few checks for a department wishing to initiate IT procurement. In terms of contract management, there is evidence that OGC’s interventions may not have sufficient impact to influence a department’s management

of a contracted IT project, no matter how flawed it may be. Despite recent attempts to address this issue, there is a case for increasing the level of sensible, discerning checks from the centre.

Recommendations

What are the principles that should underpin an effective centre-department relationship for IT? Government should take advantage of new technology, rather than allowing new technology to take advantage of it. The centre should maintain a healthy tension between these two forces, whereby strategy informs technology and technology strategy. The centre should be able to make a strategic, evidence-based case for a particular course of action, which is crucial because departments are subject to a vast array of competing pressures.

Stronger, more strategic recommendations can still be ignored. If the centre is to act as the guardian of wider government outcomes, then, like most guardians, it needs some real influence to guide and direct. We suggest four interrelated ways such influence can be fashioned and nurtured.

Discerning intervention

Coordination from the centre needs to be selective, allowing departments freedom to innovate and use technology to achieve benefits in their policy areas, while insisting on savings where the evidence is compelling. Thus, the centre needs to understand where it can add value by intervening. The “IT stack” may be a useful way of judging how to match the actions of the centre with the IT issue at stake, although it is not intended to be prescriptive.

The technology “stack”

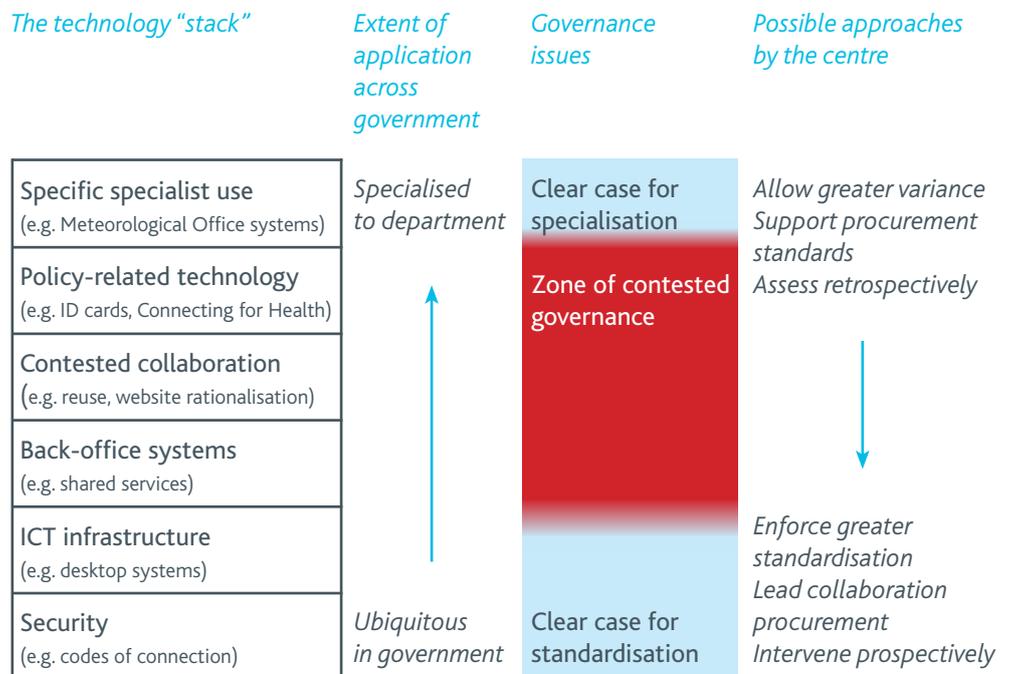


Figure 1: The IT “Stack”

Knowledge and expertise

As just noted, the centre needs robust information in order to intervene strategically and make a convincing case when it does so. It needs to take innovative approaches to identify gaps in knowledge and find ways of filling those gaps without placing excessive burdens on departments. The centre needs to attract a succession of skilled IT managers: working for a period in the centre of government should become a standard, even desirable, expectation for government IT professionals.

Create effective relationships of respect

The way in which the centre conducts its business is crucial: departmental leadership not only needs to trust the expertise of the centre, but also have respect for the way it conducts its business. To create this respect, the centre needs to ensure it shows sensitivity to what the department is trying to accomplish, thereby creating "soft power" based on attraction and reputation.

Authority

If the centre can intervene judiciously, provide high-quality data and guidance, and create relationships of respect, then it should develop enough authority to implement an effective 'comply or explain' model for departments. The goal would be to create an authoritative process whereby there would be reputational damage for a department that did not comply or explain in response to the centre's demands.

Initial changes

These new perceptions and behaviours would take time to develop. They could be prompted by some initial specific reforms, which would also underpin the centre's actions with more 'hard' power. The ways that such changes could work are outlined below, and are explored in depth in the report. However, we wish to stress that our main concern is with *how* the centre operates, rather than *where* certain functions are placed. Another reorganisation of structures is unlikely to bring benefits unless it is founded on the vision of the role of the centre outlined above.

1. The centre's lead on IT would be a CIO Unit headed by the Government CIO, supported by CIO council members, and overseen by a Minister of State with a coherent cross-government IT brief. The Unit would be created out of the current Office of the Government CIO in the Cabinet Office. The Unit will be responsible, with its Minister and OGC, for drawing up a robust IT strategy for the whole of government. This IT Strategy would have Cabinet approval and would include a committed budget to fund cross-cutting programmes. The CIO Unit would have enhanced expertise, information-gathering and guidance capabilities, but it would not have delivery capability. Rather, delivery of cross-cutting programmes would be carried out by individual departments. Overall, the most effective location for the Unit may be the Corporate Services Directorate of the Treasury, where it would work closely with OGC.
2. Such a CIO Unit would have two main ways of operating: proactive intervention and oversight. The IT strategy would set out the criteria for matching the approach to the issue, based on the "IT stack" and the strategy's priorities.
3. Proactive intervention would attempt to enforce government-wide standards in those areas where there is a strong case for cross-government coordination

and less justification for 'departmental particularism'. In case of disputes between the centre and line department, the issue would be escalated to a strengthened Corporate Functions Board for resolution. The political line of escalation would be up to the PS(X) Cabinet Committee. The Government CIO would have 'double lock' responsibility for approving major IT procurements.

4. The oversight function would carry out light-touch monitoring of major department-led IT projects, whether they be cross-governmental or specific to a department's policy remit. OGC would be able to initiate and publish its Gateway Reviews. In terms of accountability, the Government CIO would brief the Cabinet Secretary on a department's IT performance prior to the performance reviews of permanent secretaries that take place every six months.
5. In terms of transparency, the CIO Unit would publish an annual update on progress towards the IT Strategy, including a report on how each department has contributed to the strategy and the amount they have saved through cooperating with cross-cutting agendas (and through their own initiatives). These reports would be formally submitted to the CSR Review process, with the expectation that they would be taken into account in subsequent negotiations. Oversight would also come from a Parliamentary Select Committee on Major Projects, which would draw on evidence from the CIO Unit, OGC's Major Projects Review Group, and the NAO.

In the longer term, there may be a case for a new Finance Ministry that combines budgeting, efficiency and performance management responsibilities, without oversight of macroeconomic and tax issues. Its responsibilities could be similar to the Canadian Treasury Board Secretariat. This ministry might combine the responsibilities of the CIO Council and OGC to allow a more coherent overview of all the aspects of government IT. The Institute's forthcoming 'Reshaping the Centre' report considers this idea in more detail.

This report does not recommend that the centre extends its reach into all aspects of government IT. Departments are usually the best judges of their own business interests. But there are clearly some areas where greater central coordination and challenge would ensure improved efficiency and effectiveness. Where the evidence is clear and the need is pressing, the centre needs real power to act swiftly and decisively. Our recommendations would ensure that the centre has such power, while retaining the advantages of the current setup, such as a collegiate approach to strategy and strong personal relationships between CIOs. Given the need to meet complex challenges with constrained resources, the need for a strong yet smart centre has never been greater.

Introduction

Why should the centre of government be involved with IT?

Put simply, there are two main justifications for the centre's involvement in IT: first, to ensure that IT contributes to achieving government's overall strategic goals effectively; second, to co-ordinate the use of IT across government so inefficiency, variation and duplication are minimised.¹ The following sections explain these roles and judge how well the centre has fulfilled them.

1. Achieving outcomes

Over recent years, there have been impressive claims about the crucial role that IT can play in government, such as the assertion that 'policy is inspired by it, business change is delivered by it, customer and corporate services are dependent on it, and democratic engagement is exploring it'.² Such claims reflect the view, increasingly prevalent from the mid-1990s, that the main purpose of Information Technology in government is to enable or deliver better outcomes for citizens. Creating pan-government ambitions for IT invites a central coordinating role to set goals and oversee progress. And, indeed, in 2005 the Cabinet Office found itself the custodian of the wide-ranging 'Transformational Government' agenda, which was based on 'better using technology to deliver public services and policy outcomes that have an impact on citizens' daily lives'.³

One of the main goals of Transformational Government was to use IT to reconstitute services around citizens, rather than departments. A crucial first step towards this goal was to improve 'joining up' through greater interoperability of systems and common standards. The need for joining up highlights an important role for the centre: to identify and tackle those areas where government's use of IT limits its effectiveness. The centre is best placed to examine and standardise the patchwork of systems that have grown up across central government, operating to different standards and frequently unable to talk to each other. Examples abound, but small instances are often most telling, such as the case of the DfID employee who has to have emails from the Ministry of Defence forwarded to him through the Foreign Office because of security conflicts.

Given their range of policy and delivery responsibilities, line departments often have limited resources, expertise, information and incentives to address these problems which, when taken together, significantly impair the effective working of government. Therefore, there is a role for the centre to take actions that benefit government as a whole. For example, the issue of emailing DfID from the MoD should be addressed by the proposed Public Sector Network, but unless the centre drives forward such cross-cutting projects they are likely to be derailed by collective action problems – for example, no-one wanting to be the first to commit to the new structure.

How well has the centre worked with departments to achieve these desired outcomes? First, it's important to recognise that the centre's involvement in government IT is some forty years old; this history is assessed in the next section. Second, there are many other factors involved apart from the centre-department relationship (notably, performance of private sector suppliers). Nevertheless, it's clear that the verdict on the recent Transformational Government agenda is mixed. On the one hand, the government can point towards successes like the OECD's judgment that the 'Greening IT' strategy is 'world-leading' and the introduction of a national digital imaging system for x-rays that stores 500 million images online.⁴ Improved structures for liaising with suppliers have allowed HMRC to realise annual

1 For a definition of "IT", and all other initialisms and acronyms used, please see Annex A.

2 HM Government (2005) *Transformational Government: enabled by technology*, p.3.

3 *Ibid.*, p.5.

4 HM Government (2009) *Transformational Government Annual Report 2008*, p33, p.44; HM Treasury (2009) *Operational Efficiency Programme: back office operations and IT*, p.43.

Achievements have to be seen in terms of their cost and the expectations raised

savings of over £50 million a year, while departments have made considerable progress towards achieving shared services.⁵

On the other hand, these achievements have to be seen in terms of their cost and in terms of the expectations that have been raised. In terms of cost, the Treasury's Operational Efficiency Programme (OEP) estimates that total UK public sector spending on IT was £16 billion in 2007-8, 4.6% of total departmental expenditure.⁶ Perhaps the best way of interpreting this figure is to put it in an international context. John Suffolk, the Government CIO, has argued that that IT's 4.6% share of public sector spending should be compared to a global average of 5.9% and a Europe, Middle East and Africa private sector average of 7.7%.⁷ However, data from Gartner featured in the OEP indicates that Britain's per capita IT spend was \$606, considerably higher than the US (\$525) and other major European economies.⁸ The UK accounts for 22% of the EU public sector IT market (with 12% of its population), followed by France at 18% (12.8%) and Germany and 16% (16.4%).⁹ Overall, it is clear that the UK is one of the biggest spenders on government IT in relative terms. It should also be noted that the UK has a history of overspending on expensive IT-led business change projects: most recently, the Public Accounts Committee produced a scathing report on the National Offender Management Information System, which had to be halted when costs ran to three times the original estimate.¹⁰

It is difficult to link expenditure to outcomes to make international comparisons, but it is noticeable that in 2008 the UK was ranked 10th in the United Nations e-Government Readiness Index (compared to 4th in 2005), 25th in the UN's e-Participation Index (1st in 2005) and 8th in the Economist Intelligence Unit's e-readiness rankings (4th in 2005).¹¹ A recent OECD report placed the UK third in Europe for the sophistication of its e-services and 11th in terms of citizen take-up of such services.¹² Overall, the OEP concludes that the evidence 'strongly suggests that the UK public sector's IT spend is much more than other similar countries and that the UK does not get a proportionate return from this much higher spend'.¹³

In terms of expectations raised, many of the ambitions for transformational government have now been in place for some time, which raises the question of whether further progress could have been expected. Take, for example, the desire to use technology so citizens can easily notify government of a change of address. In 1999 there was a proposal from the Cabinet Office, following up the Modernising Government agenda, that 'by the end of 2001, people will be able to tell all the government departments they have dealings with of any change of address on-line, in one easy step'.¹⁴ A subsequent pilot, driven by the Office of the e-Envoy, was discontinued after poor take-up; tensions between departments, partners and the Gateway process; and difficulties integrating departmental databases.¹⁵ Five years later, Sir David Varney's first recommendation in his 2006 Service Transformation Review

5 HM Government (2009), pp.31-2, p.43.

6 HM Treasury (2009a), p.44.

7 Gartner data, cited at <http://johnsuffolk.typepad.com/john-suffolk---government-cio/2009/08/public-sector-productivity-vs-it-investment.html>

8 HM Treasury (2009a), p.57.

9 HM Treasury (2009a), p.60.

10 Public Accounts Committee (2009) *The National Offender Management Information System*.

11 International benchmarks should be treated with caution. Their deficiencies are examined at: http://www.iq.harvard.edu/blog/netgov/2009/05/one_rank_rule_benchmarking_egovernment_eu_un_brown_government20.html

12 OECD (2009) *Government at a Glance*, Chapter 10.

13 HM Treasury (2009a), p.60.

14 At: http://archive.cabinetoffice.gov.uk/servicefirst/2000/panel/address_portal/index.htm. A formal commitment to the single transaction for change of address was made in the 1999 Modernising Government report (<http://www.archive.official-documents.co.uk/document/cm43/4310/4310-03.htm>). The 2001 completion date should be taken as a representation of expectations, rather than a firm commitment.

15 SQW Consulting (2002) *Evaluation of Invest to Save Budget Case Study Report: Project 2/20 - Change of Address*. At: http://www.isb.gov.uk/hmt.isb.application.2/learners/case_studies/2-20%20Change%20of%20Address.doc

The centre has a clear role in achieving efficiencies by reducing variations and encouraging reuse

was to set up 'a service that will allow citizens to inform government once of their change in circumstances; initially this should cover bereavement, birth and change of address' by 2010.¹⁶ The Tell Us Once programme, launched in 2007, is currently piloting services for death and bereavement notifications only (while change of address remains at business case stage). In April 2009, IDEa reported that it was 'envisaged' that services for birth, bereavement and change of address would be in operation by 2011.¹⁷ Thus, as in 1999, the change of address service remains an ambition.¹⁸

2. Ensuring efficiency

The Treasury's Operational Efficiency Programme (OEP) has estimated that £3.2 billion (20%) of public sector expenditure could be cut, although this should be treated as a rough estimate.¹⁹ As the OEP acknowledges, the centre has a clear role in achieving such efficiencies by identifying areas where components could be reused, services could be shared, and collaboration could make full use of the buying power of government. The OEP points out that benchmarking IT costs between public sector bodies revealed a 'wide variation in IT expenditure... giving confidence that significant savings are possible'. Institute for Government analysis of central government departments' resource accounts reinforces this point.²⁰ In terms of procurement, the Office for Government Commerce states that £13.2bn of public sector IT is committed to external contracts, approximately 80% of total IT expenditure. Although 'many' contracts matched best practice in the public sector, the OEP noted that there was evidence that the public sector had been paying above the market rate in certain areas. Again, variation between departments was seen, with the price paid for standard laptops varying by over 300% in certain cases.²¹ As a result, the OEP estimates that £1.6bn could be saved through extended collaborative procurement in IT by 2011-12.²²

The centre has already managed to achieve efficiencies through co-ordinating the use of IT. Indeed, the latest Transformational Government report points towards successes such as nearly £100m in cumulative savings by April 2009 from the DWP's shared services work.²³ Nevertheless, it is clear that that more could be done. The National Audit Office recently pointed out that the DWP 'had not yet realised the substantial processing efficiencies and customer service improvements that could be realised by exchanging information with customers online'.²⁴ There is a role for the centre to make the case for the large savings that could be made by improved use of IT. For example, of the 145 million contacts with the DWP in 2008, only 340,000 (2.3%) took place online, despite the fact that 51% of the DWP's customers had broadband access by this point.²⁵ Research from the LSE estimates that annual savings of £430 million (20% of expenditure) could be made across Job Centre Plus as a whole through greater use of digitisation and online contacts.²⁶

16 Sir David Varney (2006) *Service Transformation: a better deal for citizens and business, a better deal for the taxpayer*, p.5, p.83.

17 IDEa (2009) *Tell Us Once: Case Study*, p.2. At: <http://www.idea.gov.uk/idk/aio/10012779>.

18 Our thanks to Jerry Fishenden and Public Strategist blog for information relating to this example.

19 HMT (2009), p.48. It should be noted that some Government CIOs have 'raised concerns about the quality and source of data' used in the OEP. See *Minutes of Joint CIO, CTO and Local CIO council*, 2-3 July 2009. At: http://www.cabinetoffice.gov.uk/media/267684/cio_minutes0907.pdf.

20 In order to guard against major variations owing to the IT investment cycle, we took the mean expenditure over two financial years.

21 HM Treasury (2009a), pp.55-6.

22 HM Treasury (2009b) *Operational Efficiency Programme: collaborative procurement*, p.26.

23 HM Government (2009) *Transformational Government Annual Report 2008*, p.

24 National Audit Office (2009) *Department for Work and Pensions: Communicating with customers*, p.6.

25 Presentation by Professor Patrick Dunleavy at the London School of Economics and Political Science, October 6th 2009. At: http://www.lse.ac.uk/collections/EDSInnovationResearchProgramme/pdf/06-10-09_dunleavy.pdf

26 *Ibid.*

“IT in government is as difficult as it gets. Government does things in IT which are more complicated than anywhere in the private sector.”

Ian Watmore

The current challenge

It may be true that, as Ian Watmore has argued, 'IT in government is as difficult as it gets. Government does things in IT which are more complicated than anywhere in the private sector.'²⁷ Regardless of the UK's past performance, IT in government now faces considerable challenges – fiscal pressures will demand greater efficiency (and may make IT projects appear to be attractive options for spending cuts), while scepticism relating to data security and IT-enabled business change projects needs to be overcome. Now, more than ever, government needs to demonstrate that technology can fulfil its strategic purposes.

In such a context, the centre has a crucial role to play. But it faces major challenges. As the Digital Britain report has noted, 'departments of state exist largely as silos to address a particular set of relatively stable analogue-era interests and issues. They are not well adapted to the fluid, iterative nature of the digital world where technology interacts with and re-shapes the underlying business process'.²⁸ The OEP recognises that the centre and Chief Information Officers should be 'empowered' to address duplication and variation across departments, but most of its recommendations do not tackle the underlying barriers they face. The Treasury Select Committee concurs, noting that the OEP's efficiencies 'will require considerable cooperation between the departments', while questioning 'whether the necessary structures are in place to facilitate such co-operation'.²⁹

This report examines whether the current combination of structures, processes, responsibilities and funding allow the centre to ensure that IT enables government to meet its objectives effectively and efficiently. Is a different role for the centre of government needed to tackle the major challenges that have arisen? How can freedom to innovate be balanced with compulsion to standardise? To address these questions, this report outlines the history of IT in government; examines how IT is currently managed in government; identifies issues arising from these arrangements; and offers recommendations to address these issues. Its findings are based on publicly available information and interviews with key civil servants, academics and consultants with experience of IT in the public sector.

²⁷ Say, M. (2005) 'The Information Man', *Government Computing*, 19:2, p. 16.

²⁸ DCMS and BIS (2009) *Digital Britain: Final Report*, p.208.

²⁹ House of Commons Treasury Committee (2009) *Evaluating the Efficiency Programme*, p.3.

Governing IT: A very brief history

The history of governing IT is crucial for understanding the current situation, since it shows that control has repeatedly oscillated between poles of centralisation and decentralisation. Since the 1968 Fulton Report, government attempts to manage IT can be seen to fall into four periods:³⁰

Pre 1982: CCA direction

The Central Computer Agency (CCA) was created in 1972 within the Civil Service Department as 'a single, strong technically competent agency to purchase computer equipment and services and to develop and co-ordinate their use in Central Government'.³¹ The CCA brought a unified approach to procurement and had some considerable power: at one stage, the CCA had direct ownership of 80 per cent of government computers. Nevertheless, questions remained over its success in improving departments' management of large-scale IT projects: the Public Accounts Committee found that CCA's advice on these matters was often ignored.³² Opinions are divided over how effectively the CCA challenged departmentalism in this period.

1982 – 1995: Decentralisation

After the Civil Service Department was abolished in 1981, the CCTA's remaining tasks were transferred to the Treasury. From around 1982 onwards, the CCTA's power diminished considerably,³³ in line with the general trend of giving control over corporate services to individual departments and agencies. By 1984, the CCTA was giving departments 'clear control over the choice of systems'.³⁴ A year later, CCTA lost financial control over computer procurement to the Treasury's expenditure divisions, who lacked expertise to control computer expenditure effectively.³⁵

1995 – 2004: Re-centralisation

In 1995, a small Central Information Technology Unit (CITU) was established within the Cabinet Office to 'take a strategic view of the way IT is used across government'.³⁶ This ambition was furthered in 1999 through the Modernising Government white paper and the creation of the Office of the e-Envoy (OeE), whose head reported directly to the Prime Minister. The OeE grew rapidly, boasting a staff of 200 people and operating costs of £50 million by 2001. Thereafter, concerns about underperformance and institutional overreach led to it being scaled down and rebranded as the e-Government Unit, which retained responsibility for IT systems across government.

2005 to date: Collegiality

The Transformational Government agenda of 2005 signalled a shift to a more consensual and less directive model, and introduced a new focus on developing IT professionalism. The foundation for this approach was the placing of Chief Information Officers (CIOs) into all government departments and agencies, drawn together through a CIO Council. The Council is headed by a Government CIO in the Cabinet Office, supported by a team of approximately 50. The ambitions of Transformational Government have proved difficult to fulfil, owing to the programme's lack of permanent central funding and the sheer scale of the challenge.

³⁰ This section draws on Dunleavy, et al. (2008) *Digital Era Governance: IT corporations, the state and e-government*, Oxford University Press (2nd edition), pp.48-9 and Organ (2003) 'The Co-ordination of e-Government in Historical Context', *Public Policy and Administration* 18:2, 21-26.

³¹ Subcommittee on Science and Technology (1972) *The prospects for the UK computer industry in the 1970s*, HC 473.

³² Public Accounts Committee (1979) *Procurement of Government Computers*, HC 463, Vol 1. Cited in Organ (2003), p.25.

³³ The CCA was renamed the Central Computer and Telecommunications Agency (CCTA) in 1984 as it took on responsibility for Telecommunications.

³⁴ CCTA (1984) *IT Series Number 8*, p.iii. Cited in Organ (2003), p.26.

³⁵ Margetts (1999) *Information technology in government: Britain and America*, p.45.

³⁶ Select Committee on Science and Technology (1996) *UK Computer Industry*, HC 137, Vol. 1.

The current role of the centre

The CIO Council exists to facilitate, not mandate, changes

The Office of Government Commerce is the main Treasury actor involved in IT

Cabinet Office

Direction for government IT strategy is provided by the CIO Council, which is charged with 'creating and delivering a government-wide CIO agenda to support the transformation of government', as well as improving capability in IT-enabled business change.³⁷ The Council brings together the CIOs of central government departments, the devolved administrations and some local authorities and agencies. The Council's federal structure means that it exists to facilitate, not mandate, changes. The Chief Technology Officer (CTO) Council replicates the structure of the CIO Council, but focuses more specifically on technological issues that support the achievement of IT's strategic purposes (such as interoperability and a cross-Government Enterprise Architecture).

The Cabinet Office's Office of the Government CIO also takes the lead on specific initiatives, such as the Public Sector Network, G-Cloud, shared services and developing the IT profession.³⁸ The Cabinet Office's Services Transformation work also involves IT significantly.³⁹ However, given that its resources are very limited, the Cabinet Office depends on those provided by other departments. Therefore, a large part of its role is 'selling' the benefits of joint initiatives and coordinating the partners that sign up.

Treasury

The Office of Government Commerce is the main Treasury actor involved in IT. It has several relevant competences (not all specific to IT): Gateway Reviews for major projects, which are mandatory in central civil government;⁴⁰ a Major Projects Review Group that scrutinises expensive, high-risk projects;⁴¹ e-Auctions; an ICT Category Collaborative Procurement team, which aims to find savings within a pan-government strategy; and the Procurement Capability Reviews.⁴² There are also two joint OGC-CIO council initiatives that affect procurement. First, the Strategic Supplier Board, which brings together the leading IT industry CEOs and government IT managers. Its 'Tiger Teams' work to improve procurement processes, quality and reliability of projects, speed of procurement and cost reduction and reuse.⁴³ Second, the Common Assessment Framework, which allows IT projects to be assessed in a standardised way, and data aggregated to provide a picture of each supplier's strengths and weaknesses. The framework includes a '360 degree element' that allows supplier account directors to provide a rating of their government clients' capability and performance.⁴⁴

The Prime Minister's Office

The Prime Minister's Office concerns itself mainly with the high-level strategic purposes of information technology, as evinced in the Transformational Government strategy. Although the e-Envoy reported directly to the Prime Minister, the CIO Council and Cabinet Office are now the main actors in maintaining oversight of IT in government.⁴⁵

³⁷ http://www.cabinetoffice.gov.uk/cio/about_the_council/the_cio_council.aspx

³⁸ The Public Sector Network will create a Virtual Private Network for the entire public sector, and a common marketplace where government organisations buy voice and data networks. It aims to both create savings and create common technical and service standards. The G-Cloud effectively aims to provide government applications 'online' so they can be accessed easily across the public sector; this will particularly help the shared services agenda.

³⁹ See, for example, the recent papers on channel strategy guidance - http://www.cabinetoffice.gov.uk/public_service_reform/contact_council/resources/channel_strategy.aspx

⁴⁰ http://www.ogc.gov.uk/what_is_ogc_gateway_review.asp

⁴¹ http://www.ogc.gov.uk/programmes___projects_major_projects_review_group.asp

⁴² http://www.ogc.gov.uk/ogc_-_transforming_government_procurement_procurement_capability_reviews.asp. In October 2009, it was announced that future capability reviews will be conducted by departments themselves. This is discussed below. At: <http://www.civilservicenet.com/latest-news/news-article/newsarticle/ogc-takes-back-seat/>

⁴³ http://www.ogc.gov.uk/gps_digest_the_supply_transformation_programme_.asp; <http://www.intellectuk.org/content/view/813/47/>

⁴⁴ The Common Assessment Framework is not currently public. This information has been gathered from a variety of sources: <http://www.intellectuk.org/content/view/823/47/>; HM Government (2009) *Transformational Government Annual Report 2008*, p.41.

⁴⁵ The Prime Minister does receive quarterly updates on 42 mission critical projects from the Office of Government Commerce, many of which are IT-enabled business change. Nigel Smith, Oral Evidence to the Public Accounts Committee, 14th January 2009

Assessing the current arrangements

The Treasury takes a relatively hands-off approach to achieving efficiency in IT across government

Extent of central coordination

Broadly speaking, the Treasury and Cabinet Office have different (though complementary) approaches to co-ordinating IT. The Treasury sees departments as fairly rational economic entities, which will do the things that are cheapest for them or provide best value. Economical solutions will therefore arise with little central direction because they are sensible and benefit everyone. Similarly, departments will invest money where there is the prospect of gains, so there is little need for incubation funds for inter-departmental initiatives. Although the Treasury may take a firm line on budget negotiations, it takes a relatively hands-off approach to achieving efficiency in IT across government.

Nevertheless, the Treasury has been active in some areas. For example, the Office of Government Commerce has become increasingly active in mapping IT procurement spend and achieving efficiencies from collaborative procurement (although less so in the wider public sector). Similarly, the Treasury's Operational Efficiency Programme made some specific proposals to strengthen oversight and coordination of IT. However, many of its recommendations are vague and merely reflect the existing power structures – saying that CIOs and OGC Collaborative Category Boards 'should be empowered to address duplication and large cost variations' immediately invites the question, 'How?'⁴⁶ Without specific, binding proposals, it is likely that the rate of progress will not match the OEP's ambitions, and entrenched problems will endure.

The Cabinet Office depends on informal relationships

The Cabinet Office 'model' is collegial and cooperative; it depends on informal relationships rather than 'hard' power. Implementation of CIO Council decisions is essentially peer-enforced and relies on CIOs securing agreement from their departmental colleagues.⁴⁷ The CIO council has little capacity or authority to enforce its will, even if its decisions could significantly improve the efficiency or effectiveness of government. One interviewee claimed that even letters from the Cabinet Secretary are sometimes insufficient to ensure departments' compliance on IT issues, even in relatively trivial matters. Of course, the Cabinet Secretary, in his role as Head of the Civil Service, may decide to use his power over pay and promotions to bring officials on side – but this is a rather blunt instrument that can only be applied retrospectively.

The central IT function has no 'hard' power to make things happen

The current arrangements mean that the central IT function in the Cabinet Office has no 'hard' power to make things happen. As one senior Cabinet Office employee explained, 'The department always has more troops on the ground in the argument... If the department wants to argue, you are lost.' This is a particular difficulty for the Cabinet Office's management of government-wide IT initiatives (such as the Public Service Network or the G-Cloud), since it makes them vulnerable to collective action problems. While most departments understand the 'public good' benefits that such projects bring, there is reluctance to be the first to make a commitment and shoulder the initial risk. One potential solution is, as a Cabinet Office interviewee put it, 'to find a way in which departments who take things forward are rewarded, and it doesn't become a drain on the rest of their business'. An alternative is to ensure that there is sufficient power and resource to drive desirable pan-government projects forward from the centre.

The Cabinet Office does a good job *within the current model...*

There are two important things to be said in defence of the Cabinet Office. First, there is the wider historical context. After the relative failure of the Office of the e-Envoy, it was understandable for the pendulum to swing back towards decentralisation – and maintaining the optimum tension between the two poles is notoriously difficult. Second, many

⁴⁶ *Ibid.*, p.67.

⁴⁷ It is likely that the forthcoming Government IT Strategy will introduce strengthened governance arrangements for each of its thematic areas.

...but the model falters when turning strategy into action

interviewees stressed that the Cabinet Office does a good job *within the current model*. The CIO Council has brought significant benefits in terms of sharing best practice and developing strategic direction. In one respondent's words, 'that group of CIOs [has] got to the stage where they work together and some will take the lead on various issues that are coming through'. Similarly, there was praise that the Cabinet Office has identified the crucial issues and agendas facing government: in other words, its strategy is right.

This highlights the crucial issue at stake: the Cabinet Office model is suited to developing strategy and improving links between CIOs, but it falters when strategy turns to action. As one Cabinet Office interviewee put it: 'the Cabinet Office "model" has worked for strategic planning; in terms of implementation, it has creaked a bit. So everyone agrees 'in principle' - but then what?' The Digital Britain report concurs:

'The CIO and his Council have been significant drivers of Digital Government Phase Two reforms. But there are limits to the pace at which change can be driven by guidance, exhortation and discussion. Government as a whole cannot afford an excess of departmental particularism to frustrate the necessary drive to common systems and procurement.'⁴⁸

In other words, the current approaches, in combination, are not sufficient to tackle the issues that are controversial, conflict with departmental priorities, require initial funding, or whose benefits do not immediately accrue to the actors involved.⁴⁹ These are not new problems: over the past 30 years the centre has frequently found itself sidelined, ignored, and not seen as a 'significant player' in IT.⁵⁰ It faces 'enormous difficulties in creating the organisational, structural, cultural and technical changes necessary for joined-up e-government'.⁵¹ The following sections explore the current challenges.

1. Competing departmental priorities

One of the main barriers to coordinating IT across government is a lack of enthusiasm or cooperation from individual departments. The most significant causes are:

Other priorities

Individual departments' priorities routinely eclipse cross-government initiatives. Political and financial accountability resides within departments; permanent secretaries still embody power. Introducing changes from the centre is difficult unless a clear 'business case' – providing clear evidence of why taking action will benefit a department – can be made. Even then, IT may lose out in the trade-offs that are prevalent in government. A permanent secretary may decide that, in the face of limited resources, achieving a particular policy goal is more important than participating in a pan-government initiative with immediate costs and delayed payoffs. Political priorities are perhaps the most salient factor, and are considered in more detail below.

Dislike of central interventions

Many interviewees suggested that line departments have an inherent dislike of edicts from 'the centre'. As one noted, 'if you start mandating, then the bright opposers think up reasons why the initiative doesn't apply to them and argue the toss... a lot of energy is spent on the people who won't agree – you have to drag them along.' This resistance is founded on the

⁴⁸ DCMS and BIS (2009) *Digital Britain: Final Report*, p.213.

⁴⁹ These issues are not specific to IT and are also dealt with in the 'joining up' section of the wider report.

⁵⁰ See, for example, Public Accounts Committee (1979) *Procurement of Government Computers*, HC 463, Vol 1; National Audit Office (1984) *Administrative Computing in Government Departments*, HC 259; National Audit Office (1999) *Government on the Web* HC 87.

⁵¹ Organ (2003), p.31.

perception that the centre does not understand the department's competing priorities (see above), does not suffer the same pressures, and is not exposed to the same consequences for failure. There may be some truth to these perceptions, but it is perfectly possible to see the centre as an enabling force that helps departments meet common challenges such as tight spending limits (if the centre does indeed have these capabilities).

Perceptions of increased risk

For departments, intra-governmental cooperation may seem rife with risk. They are relinquishing control over risks to another department, which may have different priorities. There may be few or no ways of holding this department to account, unlike if the work was conducted within their own department or the bounds of a contract. The fixed cost of a contract may seem to be a less risky option, although it frequently proves otherwise.⁵²

Intra-departmental co-ordination

Problems with *intra*-departmental co-ordination exist, most commonly in those departments whose agencies and NDPBs are numerous and powerful. Some departments are highly federated structures. The core department may thus encounter agency resistance to the IT initiatives it attempts to implement on behalf of 'the centre': an obvious objection is that such initiatives may detract from agencies' specific targets and functions. In this sense, federated departments offer a microcosm of the problems besetting inter-departmental coordination.

Appreciation of IT

The managers of departments may not fully appreciate the importance of IT in achieving wider strategic goals. As one interviewee argued: 'One of the main problems is that Permanent Secretaries don't understand what the technology means for outcomes. Or rather, Permanent Secretaries might grasp the rationale but not really engage with it. You really need to get Permanent Secretaries to care about how IT can improve outcomes.' As David Clarke, President of the British Computer Society, has noted: 'It is unacceptable for a modern chief executive to be ignorant of the strategic use of IT — but the same also goes for politicians or senior civil servants.'⁵³

Unsurprisingly, some management teams engage with IT more than others. Yet this is not wholly owing to their personal interests – the competencies of Government CIOs also matter. Some interviewees argued that too many Whitehall CIOs retain a narrow focus on technology, rather than on the business outcomes of their department. This is out of kilter with the private sector, where the CIO is first and foremost a business strategist who uses IT to support the corporate strategy. Some interviewees noted that this 'business awareness' of government CIOs has improved over recent years.

2. Dependence on individual CIOs

The CIO council assigns significant agency to CIOs. The recent Operational Efficiency Programme recognised this state of affairs by addressing many of its recommendations at the collective group of CIOs (as noted above). The difficulty is that relying on individual CIOs increases the variability of departments' engagement with cross-government agendas. This is because the power of individual CIOs at any given moment (both within their department and in the CIO council) is affected by multiple factors:

⁵² 'It became expected practice [for private sector providers] to pitch prices for initially completed tranches of work relatively low, in the confident expectation that later revisions and extensions would create negotiated contracts of between four and six times the initial competed contract price.' Dunleavy *et al.* (2008), p.76.

⁵³ David Clarke (2009) 'Tech policy must emerge from the silo'. At: <http://resources.zdnet.co.uk/articles/comment/0,1000002985,39710789,00.htm>

The type of work carried out by the department

CIOs are likely to play a significant role in departments whose objectives and smooth functioning are heavily dependent on information storage and processing (the most obvious examples are the Department for Work and Pensions and Her Majesty's Revenue and Customs).

The structure of the departmental 'family'

A federated structure – one with large, powerful agencies and a weak core – may result in the departmental CIO having a smaller budget and wielding less power.

Formal roles

Privileges, such as a seat on the departmental board, can give CIOs access to vital information and provide an important forum to 'make the case for IT'. It is noticeable that in only two of the 18 main central government departments does the CIO sit on the management board.⁵⁴

The resources the CIO can draw on

If a CIO only has only a small number of employees to create the departmental IT strategy, it can be more difficult to exert influence in the department or over agencies. This is partly a capacity issue, but also reflects the perception that power correlates with budgetary control.

Personal relationships

CIOs need to form alliances to get the job done adequately and with proper resources. Doing so relies on a CIO's personal characteristics, which obviously creates variability between departments. Even good existing relationships are not secure, given that the internal dynamics and composition of senior management frequently change.

3. Resources and reputation of 'the centre'

In the current set-up, the centre needs to fulfil some crucial tasks – tying together disparate activities into a strategy, bridging different interests across government, providing expert advice, and overseeing cross-government initiatives. As noted above, the centre is generally considered to be strong on IT strategy; there are, however, some barriers that hinder its fulfilment of the other roles.

Resources

In a sign of the current system's decentralisation, the IT function in the Cabinet Office is directly responsible for 0.068 per cent of total government spending on IT.⁵⁵ This lack of resources underpins all the points made in this section, but has some specific consequences:

First, it creates a relationship of dependence between the centre and departments. As noted above, Cabinet Office initiatives are mainly staffed by volunteers from line departments: one interviewee estimated that between 10-20 people work for the Cabinet Office on IT initiatives for every one Cabinet Office employee. In the words from one interviewee: 'the CIO council is run on grace and favour, and requests from the Cabinet Office will always be shoved down the agenda by Permanent Secretaries'. The centre's lack of a disbursement function makes it easier for departments to simply ignore Cabinet Office requests.

Second, it may mean that the centre cannot fund cross-governmental projects itself, making them potentially more vulnerable to changing priorities. One interview illustrated this point by saying '[take] Transformational Government – as soon as the money ran out, no-one took

⁵⁴ The two departments are the Department for Work and Pensions and the Foreign and Commonwealth Office.

⁵⁵ Figures stated by John Suffolk. At: <http://johnsuffolk.typepad.com/john-suffolk---government-cio/2009/08/public-sector-productivity-vs-it-investment.html>

any notice.' One may disagree with the specific example used (the reality clearly being more complex than suggested), but the principle remains true.

Third, it means the centre often finds it easier to attract support for projects from the private sector than other departments. A predominance of private sector volunteers may skew the project more towards serving the interests of industry than those of government.

Information and expertise

Evidence on the cost and purposes of departments' IT is needed to identify gaps and duplication; it is the foundation for effective coordination. Many interviewees claimed that the centre does not possess sufficient information to analyse IT in government effectively. Such a lack can mean that the centre simply does not know the scale or location of the problems it is facing, and thus finds it difficult to formulate a response. But information problems also crop up after a particular course of action has been identified. For example, much current Cabinet Office work is based on 'selling' the benefits of participation in mutually beneficial projects. A set of compelling evidence can greatly strengthen the case for cooperation and the credibility of the seller: in the words of one interviewee, 'If you've got the evidence base that this is the way to go, then by and large permanent secretaries are pretty sensible.'⁵⁶ It was argued that such an evidence base is often lacking or incomplete.

Inadequate information collection is scarcely a new charge; the OEP, for example, examined it in detail, and consequently work has started to build better data collection mechanisms – led by both the Cabinet Office and OGC.⁵⁷ But possessing information is only half the solution: an organisation must also know what to do with it. Many interviewees expressed doubts about the IT expertise available at the centre. Of course, it would be unreasonable to expect staff at the centre to be able to cover all issues to the same level of expertise as specialists, or to know departments as well as their CIOs. But many interviewees argued that that a higher level of IT expertise is needed at the centre of government; and clearly this is linked to resource constraints, as noted above.

Delivery

There were doubts over whether the Cabinet Office had the delivery capability to fulfil its role in overseeing IT initiatives. These doubts are given some credence by the recent Capability Review of the Cabinet Office, which rated developing clear delivery models as an urgent development area and suggested that the Cabinet Office's role in supporting delivery of the Transformational Government agenda was not highly valued by other departments.⁵⁸ Having said that, interviewees were positive about the personal abilities of the current Government CIO to develop consensus and exert 'soft power' through relationships in order to overcome delivery obstacles.

4. Lack of political integration

When considering politics and IT, it's fair to say that, first, ministers should better understand the attributes of the technology that is essential to achieving the outcomes they desire; and, second, the administration of IT should adapt better to political realities. Our research identified three main issues with the relationship between politics and IT.

⁵⁶ For example, the latest initiative being led by the Cabinet Office concerns a "G-Cloud", as proposed in the *Digital Britain* report. Such work has only started, but one of its priorities should be to offer evidence on the benefits that will ensue from the initial investment. This is particularly necessary given that there is some evidence that current cloud computing services may give only limited savings – or may not actually be cost effective – for organisations with large IT infrastructures. McKinsey & Company (2009) *Clearing the air on cloud computing*. Draft discussion document. At: <http://images.cxotoday.com/cxoimages/storyimages/matter101157.pdf>. Gartner (2008) *Dataquest Insight: A Service Provider Road Map to the Cloud Infrastructure Transformation*.

⁵⁷ HM Treasury (2009a), p.64; HM Treasury (2009b), p.27.

⁵⁸ Cabinet Office (2008) *Capability Review of the Cabinet Office*, p.11.

Lack of political concern for IT implications

Ministers frequently do not pay sufficient attention to the IT dimension of policy announcements. As one interviewee explained, 'ministerial timeframes and IT change programme timeframes are not the same. Ministers want to deliver IT-enabled business change very quickly.' Given that, generally, 'ministerial priorities trump all', this need for speed is particularly likely to inhibit cross-cutting initiatives that are not associated with a particular minister – even if they offer considerable savings. As one interviewee explained, 'if you ask to reuse the DWP's systems, they may be fine with it but may need six months to sort it out – and you are under pressure because your minister has already announced a deadline.' The overriding importance attached to individual ministers' initiatives, coupled with their lack of attention to IT issues, often leads to the wheel being reinvented across government.

IT enters too far 'down-stream'

IT is often seen as an after-thought because it enters the decision-making process too far 'down-stream', when plans and deadlines are already fairly definite. One interviewee said that the levers available to the centre 'may only be pulled very late in the day, at which point there may already be substantial political commitment... the solution is to intercept the IT issues in time so they can help rather than hinder business outcomes.' If this happened, the possibility of reusing components would be raised much earlier in the policy-making process, meaning that lead-times are more likely to fit with a minister's deadline. Of course, the aleatory nature of politics means that there will not always be time to build IT in early – and it is perhaps unrealistic to think that IT considerations will be at the front of ministers' minds. Even so, more could be done to ensure that consideration of whether proposals will require complex IT implementation enters the policy-making process sooner, and that the bias is towards simpler IT requirements.

Complexity of political arrangements for leadership on IT issues

Over the past decade, it's clear that ministerial responsibilities for IT in government have been mutable and overlapping. Broadly speaking, there have been three main sources of ministerial input: a) in the period 1999 – 2004, the e-Envoy reported to the Prime Minister; b) the Cabinet Office has had a Minister (usually a Parliamentary Secretary) responsible for a public service reform brief that includes some form of electronic government; c) the Department for Trade and Industry and its successors have had a Minister of State with a brief that includes e-commerce.⁵⁹ Responsibility has also been given to ministers for major individual IT projects: the Minister of State (Health Services) in the Department of Health currently oversees the NHS's National Programme for IT, for example.

Two relevant points arise from this setup. First, it is clear that the e-government agenda has often been split across departments: in 2003, responsibility for "e-transformation" of public services fell under the Cabinet Office, while crucial elements such as privacy, data-sharing and data protection were handled by the Department for Constitutional Affairs.⁶⁰ Of course, there are advantages to distributing specific IT projects in this way, since it helps them to remain connected to the 'business' of their department. But cross-governmental issues may lose coherence unless there are frequent cross-departmental contacts between ministers. Interestingly, between 2008 and 2009 Tom Watson had a fairly coherent set of IT responsibilities as Parliamentary Secretary at

⁵⁹ The Annex gives a list of the relevant ministers. The e-commerce role has been included because it was frequently perceived as being the "e-minister" role, and so the holder frequently made high-profile announcements on Government IT. See, for example, <http://news.zdnet.co.uk/security/0,1000000189,2078369,00.htm>. E-commerce no longer appears to be a ministerial responsibility. See Cabinet Office (2009) *Current list of ministerial responsibilities*, at: <http://www.cabinetoffice.gov.uk/media/301888/lmr-oct09.pdf>

⁶⁰ <http://www.epractice.eu/en/news/283852>

the Cabinet Office; since June 2009, these responsibilities are more fragmented and sit with three ministers in three different departments.⁶¹

The second point follows logically. Ministerial responsibility for IT has often been combined with other, often unrelated, duties – making it harder for ministers to build expertise coherently, and raising the risk that IT may get “lost” amongst the raft of other roles. The table below shows the competing duties for the three current ministers with significant IT responsibilities:⁶²

⁶¹ See the following table.

⁶² Taken from Cabinet Office (2009) *Current list of ministerial responsibilities*.

Name and role	Angela Smith Minister of State, Cabinet Office	Jim Knight Minister of State, Department for Work and Pensions Minister for the South West	Stephen Timms Financial Secretary to the Treasury Parliamentary Under-Secretary of State, BIS
Responsibilities (those relevant to cross-government IT in bold)	Third Sector Office of Government Chief Information Officer Information Security and Assurance Social exclusion UK Statistics Departmental responsibility for Better Regulation and Human Rights Civil service issues	Labour market and the economy Labour market statistics Welfare Reform Jobcentre Plus Employment programmes, including the future of the New Deal European Social Fund Ethnic minority employment (Chair of EME taskforce) Migrants, refugees and asylum seekers Adult Disadvantage (including ex-offenders) City Strategy Employers Skills Disadvantaged areas and regional issues Tax Credits (where DWP has an interest) Habitual Residency Test National Insurance Numbers (NINOs) Service Transformation and Change Programme Departmental IT and data security Directgov Digital Inclusion Departmental Management Issues	Strategic oversight of the UK tax system as a whole including direct, indirect, business and personal taxation Tax credits and integration of the tax and benefit system, including welfare reform and child poverty Departmental Minister for HM Revenue and Customs and the Valuation Office Agency Lead Minister on European and international tax issues and assist where necessary on broader European issues Overall responsibility for the Finance Bill The voluntary sector, charities, including Corporate Social Responsibilities Assist the Chancellor on European and International issues. Digital Britain Communications and content industries, including creative industries; and IT and electronics sector

5. Central expertise in procuring and managing IT projects does not always count

The impact of the OGC

Government procurement of IT is a large and complex field; this study cannot consider all the issues it raises. Broadly speaking, the OGC is considered to provide fairly good advice on government IT procurement. Its deals with Microsoft, for example, have been credited with securing a 50 per cent markdown in the bulk purchase of government software. It has a good strategic overview of procurement and its Procurement Capability Reviews have generated some impressive results.⁶³ Despite this progress, questions remain over whether more could be achieved if OGC had greater authority to ensure departments act on its strategic direction. A recent statement by the Chief Executive of OGC is interesting in its equivocation on the OGC's 'clout':

'I have got to say I do not have one instance where I have recommended that something should be done when it was not done. I do believe I have clout; the issue for me is not whether I personally have clout because, with the best will in the world, I am going to get involved in only a small number of maybe highly sensitive contracts; the issue is whether or not we institutionalise the process whereby there is clout in the process so that when I disappear at the end of my term the clout does not disappear with me as an individual.'⁶⁴

This report concurs with the need to give processes 'clout'. For example, the centre imposes relatively few formal checks for a department wishing to initiate IT procurement.⁶⁵ In terms of overseeing project management, a recent NAO report on commercial skills for complex government projects concluded that 'there has been a lack of departmental engagement with some OGC initiatives... and some departments continue to run initiatives which duplicate those of the OGC'.⁶⁶ As the Digital Britain report noted, 'currently, final sign-off for all new internal system procurements rests with individual departmental Accounting Officers; the Government CIO is consulted but it is not his decision.'⁶⁷ The rest of this section considers the centre's oversight of IT-based project and contract management, since the NAO recently concluded that OGC could do more to improve departments' contract management throughout the life of the project.⁶⁸

Oversight of project management

OGC's Gateway Reviews offer an established means of overseeing the progress of major IT projects and highlighting potential problems before they escalate. Ian Watmore, giving evidence to the Public Accounts Committee, recently claimed that 'Gateway is one of the best examples of quality assurance reviews I have seen in project management in 25 or 26 years... they do feed in lessons at the right time'.⁶⁹ Since Gateway reviews are not made public, it is difficult to assess their impact. Those in the public domain have been released through Freedom of Information requests, and thus usually deal with controversial or failed projects. In other words, the 57 reviews that have been released may offer a biased sample of

63 Office of Government Commerce (2009) *Procurement Capability Reviews End of Wave 1 Overview Report*.

64 Nigel Smith, Oral Evidence to the Public Accounts Committee, 14th January 2009

65 Initially, the only contact a department needs to have with the centre is to apply the OGC's Risk Potential Assessment tool. Under an EU Directive, the department must liaise with HM Treasury to have projects worth over £97,000 published in the Official Journal of the European Union.

66 National Audit Office (2009) *Commercial skills for complex government projects*, p.8.

67 DCMS and BIS (2009) *Digital Britain: Final Report*, pp.213-4.

68 Nigel Smith, Oral Evidence to the Public Accounts Committee, 14th January 2009; National Audit Office (2009) *Central government's management of service contracts*, p.6.

69 Public Accounts Committee (2009) *Learning and Innovation in Government*, Ev.4.

the total 2,500 conducted.⁷⁰ Nevertheless, the 31 Gateway Reviews on the NHS's National Programme for IT (NPfIT) alone make a case for the centre to exert more influence over departments' major IT projects. It is clear that work on the various strands of the NPfIT did not sufficiently heed warnings and negative reports from Gateway reviews.⁷¹ Indeed, the OGC was only asked to perform two OGC reviews of the programme as a whole, both at very early stages. This was despite its recommendation that more reviews should be carried out.⁷² The second, final, review was published in November 2004 and gave the overall status as "Red", pointing out 'the lack of a coherent benefits realisation strategy and the absence of clarity regarding the organisational structure'.⁷³

This case highlights two points about the role of the centre: first, that a department was able to continue a "Red" rated project without significant adjustments;⁷⁴ second, that whatever OGC's concerns, in practice it only carries out Gateway Reviews when requested. It appears that the department's position of power meant that it could respond to unwelcome news by failing to request any more news at all.⁷⁵ Similar failings are evident in the Public Accounts Committee's recent, damning, report on the National Offender Management System.⁷⁶ With this in mind, there is reason to be cautious about the news that the well-received Procurement Capability Reviews are now to be carried out by departments themselves.⁷⁷

In sum, although Gateway reviews 'can provide an effective challenge process... there is evidence they are not always taken seriously'.⁷⁸ In other words, Gateway reviews may not have sufficient impact to influence a department's management of a contracted IT project, no matter how flawed it may be. There have been some attempts to address this problem: now, a single Red rating means the Chief Executive of the OGC writes a letter to the permanent secretary, 'it is disseminated to the centre of excellence on PPM, it is disseminated right across the department, it goes to the NAO, the NAO notify... the PAC'.⁷⁹ The OEP also makes some welcome recommendations to strengthen the governance of IT-enabled projects, but these are mostly based on the premise that CIOs can exert significant influence from their place in the departmental hierarchy. For all the reasons outlined above, such influence may not be possible; there is a case for increasing the level of sensible, discerning checks from the centre.

The length of procurement

Having said that, there is a need to be cautious about extending oversight from 'the centre' too much: it can become cumbersome. There is a danger that applying a standard central oversight procedure to the wide range of government IT procurement may require significant bureaucratic effort. Indeed, there are some concerns that current government procurement

70 The figure of 57 is compiled from: http://www.ogc.gov.uk/ogc_and_the_freedom_of_information_act_blank_page.asp; http://www.computerweekly.com/blogs/tony_collins/2009/06/order-to-publish-more-gateway.html.

71 <http://www.connectingforhealth.nhs.uk/about/foi>; <http://www.computing.co.uk/computing/comment/2244750/unheeded-warnings-highlight-nhs-4731810>

72 Similarly, the NAO has noted that Gate 5 Reviews, which assess the benefits of a programme, are only applied by 20% of departments – despite the fact they are mandatory. NAO (2009) *Helping Government Learn*.

73 Office of Government Commerce (2004) *NHS National Programme for IT: Gateway Number 214*. At: <http://www.connectingforhealth.nhs.uk/about/foi/g0npfit0217.pdf>

74 This is not an isolated instance. In 2006, the NAO recommended a review of 'how "red" reviews, and multiple "red" reviews, are dealt with in future in terms of guidance to the senior responsible owner and bringing them to the attention of the Permanent Secretary'. NAO (2006) *The delays in administering the 2005 Single Payment Scheme in England*.

75 Ipsos Mori conducted two annual surveys on the National Programme for IT that produced unwelcome results. No more reviews were commissioned, although there may be no causal link. http://www.computerweekly.com/blogs/tony_collins/2009/06/16-key-points-in-gateway-revie.html

76 Public Accounts Committee (2009) *The National Offender Management Information System*.

77 <http://www.civilservicenetwork.com/latest-news/news-article/newsarticle/ogc-takes-back-seat/>. In defence of the move, OGC argues that the PCR process is based on rigorous quantitative analysis that is not amenable to manipulation.

78 Public Accounts Committee (2009) *Learning and Innovation in Government*, p.10.

79 Nigel Smith, Oral Evidence to the Public Accounts Committee, 14th January 2009.

is currently too unwieldy. Intellect, the trade association for the technology industry, has claimed that 'enormous savings' can be made by further reducing the cost and time of public sector procurement. In particular, it notes that 'the average time "to let" a major ICT procurement in the UK is 15 months, compared to nine months in Europe and as little as three or four months in a crisis'.⁸⁰ Indeed, procurement can take three years from start to finish,⁸¹ often leaving government with an end product that is ten years old in technology terms. Of course, lethargic procurement is not a good reason in itself for limiting oversight as such, since the delays could be addressed by tackling other causes. But the level of such oversight needs to be based on effective risk assessment⁸² and interventions from the centre need to be targeted rather than excessive.

The overall picture

The major issues affecting IT across government identified by this report are summarised below.

1. The Treasury and Cabinet Office's approaches to coordinating IT in government are collegial and based on persuading not mandating. This model has advantages - the CIO council works well together and has developed a good strategy - but it is not sufficient to tackle thorny problems of cross-department cooperation that hinder the realisation of better outcomes for citizens.
2. Departments are reluctant to cooperate with the centre's agenda because they have other priorities; dislike central interventions; perceive it to be risky; may not appreciate the importance of IT; and have complex internal power structures.
3. The CIO Council is based on departmental CIOs having power in their own departments. However, the basis for such power is variable and fluctuating: the type of work carried out by the department; the CIO's formal role and resources; and personal relationships.
4. There is a mismatch between the centre's role and its resources. The Cabinet Office has a dependent relationship with other departments and cannot command attention through disbursement. The centre does not possess sufficient information to analyse IT in government effectively, and may require a higher level of IT expertise. The Cabinet Office may also lack the delivery capability to fulfil its role in overseeing IT initiatives.
5. There is a lack of political concern for the IT implications of policies. Given that 'ministerial priorities trump all', cross-cutting initiatives are likely to lose out. IT enters the decision-making process too far 'down-stream', often when firm commitments have already been made. Political leadership for IT has been fragmented between departments and buried inside ministerial briefs.
6. While the centre has expertise in procurement, departments have considerable freedom to initiate and manage IT projects regardless of its advice. However, it is important to prevent the centre's helping hand from becoming an oppressive 'dead hand'.

The final section offers recommendations to address these issues.

⁸⁰ 'Memorandum from Intellect', in House of Commons Treasury Committee (2009) *Evaluating the Efficiency Programme*, Ev 46.

⁸¹ DCMS and BIS (2009) *Digital Britain: Final Report*, p.212.

⁸² The OGC's Risk Potential Assessment is currently being redeveloped. http://www.ogc.gov.uk/programme_and_project_news_the_sutherland_inquiry.asp

Recommendations

Our recommendations outline the principles that should underpin an effective centre-department relationship for IT, and suggest how these principles could be realised through actions. Finally, we specify the initial structural changes that will help such a relationship develop.

The principles of an effective relationship

If IT is intended to help achieve strategic outcomes for government, it seems obvious that the role of the centre needs to be considered in terms of how it contributes to these outcomes. Looking “from the outside in” allows us to identify what we *need* the centre to do, versus the line departments, rather than simply trying to divide up responsibility for pre-existing roles.

In crude terms, it is possible to identify four roles for IT in government:⁸³

Improving services. In other words, allowing government to “do new things”, both within and between departments. This role is strongly represented in the “Transformational Government” agenda and the Digital Britain report’s ‘Government of the Web’ concept.⁸⁴

Improving efficiency. Allowing government to “do the same things more efficiently and productively”. For example, this is the thrust of the attempts to share services between departments.⁸⁵

Enabling itself. Supporting the preceding two roles by controlling any issues caused by the specific use of IT. For example, ensuring common standards, information security, and effective project management of IT-enabled change.

Involving citizens. Allowing citizens to access, consume and recombine information held by government, and contribute towards this store of information. The Power of Information Task Force outlines this role in more depth.⁸⁶

In sum, IT must be considered in tandem with the purpose and design of government as a whole; this means that it should neither be seen as a stand-alone panacea, nor ‘something for specialists only’: its full benefits will be only realised when it is tightly woven into the work of government. This means that although new technologies open up new possibilities for government, the end must be kept in sight – improved outcomes for citizens. Government should take advantage of new technology, rather than allowing new technology to take advantage of it. This requires a healthy dialogue between these two forces, whereby strategy informs technology and technology strategy. If the overall purpose of IT is forgotten, then it is very possible, for instance, to gold-plate technology and provide more functions and firepower than are needed.

The centre should act as a guardian for wider government outcomes and maintain a tension between technology and strategy

The centre should act as the guardian of the wider government outcomes and ensure that there is this healthy tension between technology and strategy.⁸⁷ Accordingly, permanent secretaries and senior managers need to have a firm grasp on the relationship between IT

⁸³ For a fuller discussion of the role of IT in government, see Dunleavy, et al. (2008) *Digital Era Governance: IT corporations, the state and e-government*, Oxford University Press (2nd edition).

⁸⁴ http://www.cabinetoffice.gov.uk/cio/transformational_government.aspx; DCMS and BIS (2009) *Digital Britain: Final Report*, pp.208-224.

⁸⁵ The Operational Efficiency programme is clearly related to this role, but it focuses on improving the efficiency of IT itself - rather than on improving the efficiency of government *through* IT.

⁸⁶ <http://poit.cabinetoffice.gov.uk/poit/>

⁸⁷ This accords with the recommendation of the Chakrabati Review that the Cabinet Office’s ‘offer’ be based on ‘an overarching view on Government priorities’. Chakrabati (2007) *Role of the Cabinet Office: Leadership through effective collaboration*, p.2. At: http://www.cabinetoffice.gov.uk/media/cabinetoffice/corp/assets/publications/reports/chakrabarti_review/chakrabarti_review_co.pdf

More is needed to tackle the contested areas where the current setup fails

The centre's interventions need to be selective

and strategic outcomes, and attempting to achieve this should be one of the main tasks of the department's CIO. CIOs, in turn, should be able to draw on the centre as a respected resource that provides high-quality, relevant information. The ability to make a strategic, evidence-based case for a particular course of action is crucial because departments are subject to a vast array of competing pressures. Making trade-offs amongst these pressures may be the permanent secretary or board's responsibility, or it may be a political decision. Either way, the centre and CIOs should be able to make a convincing strategic case for the IT decisions being recommended – or enable the permanent secretary to do so. If ministers are involved, then the strategic case should be presented early in the decision-making process. The forthcoming Government IT strategy should help to link individual cases into the broader cross-government context.

Stronger, more strategic recommendations are all very well, but they fall victim to what David Henderson called "the unimportance of being right".⁸⁸ In other words, if the centre gives recommendations alone they are liable to be dismissed, no matter their strength, for the reasons given above. Indeed, past experience shows that coordinating IT below the level of permanent secretaries lacks impact in the final analysis. More is needed to tackle the contested areas where the current setup fails. If the centre is to act as the guardian of wider government outcomes, then, like most guardians, it needs some real influence to guide and direct. We suggest four interrelated ways such influence can be fashioned and nurtured: discerning intervention, knowledge and expertise, relationships of respect, and authority.

Discerning intervention

Coordination from the centre needs to be selective, allowing departments freedom to innovate and use technology to achieve societal benefits in their areas, while insisting on savings where the need and evidence is compelling. Thus, the centre needs to understand where it can add value by intervening - when it is best to standardise and when it is appropriate to allow departments freedom to make judgements themselves, since this can lead to innovation and 'positive deviance'⁸⁹ with net benefits for all. There are three main ways of building such an understanding.

First, the centre needs to assess how important the issue is to the government's wider IT strategy, and to achieving the department's objectives.⁹⁰ To what extent will implementing the technology as proposed jeopardise success in either or both domains? In other words, the centre must know what departments have to accomplish and offer ways for them to do it better.

Second, the centre needs to understand, based on evidence, whether the current proposals will have any plainly undesirable effects, be they intra- or inter-departmental (e.g. excessive or unnecessary costs, lack of interoperability).

Finally, the centre should have a conceptual framework for understanding its interventions. The task of overseeing the relationship between technology and strategy changes according to the issue at stake. There are some issues where it makes sense for departments to have a great deal of agency: perhaps specifying and procuring customer-facing systems, since the department knows its customers and has an overall strategy for dealing with them. But for more basic, underlying IT functions, the centre should have the authority and strategic insight to decide the best course of action. Put simply, the CIO should be aware when to

88 P. D. Henderson (1977) 'Two British errors: their probable size and some possible lessons,' *Oxford Economic Papers*, 1977, pp. 159–205, p.190.

89 Spreitzer and Sonenshein (2004) 'Toward the construct definition of positive deviance', *American Behavioral Scientist*, 77(6): 828-847.

90 A government-wide IT strategy is currently being developed.

tell the departmental leadership 'leave this issue to me', and then draw on the collective resources of the centre to implement the best solution.

The diagram below suggests that the 'IT stack' may be a useful way of judging how to match the actions of the centre with the IT issue at stake.

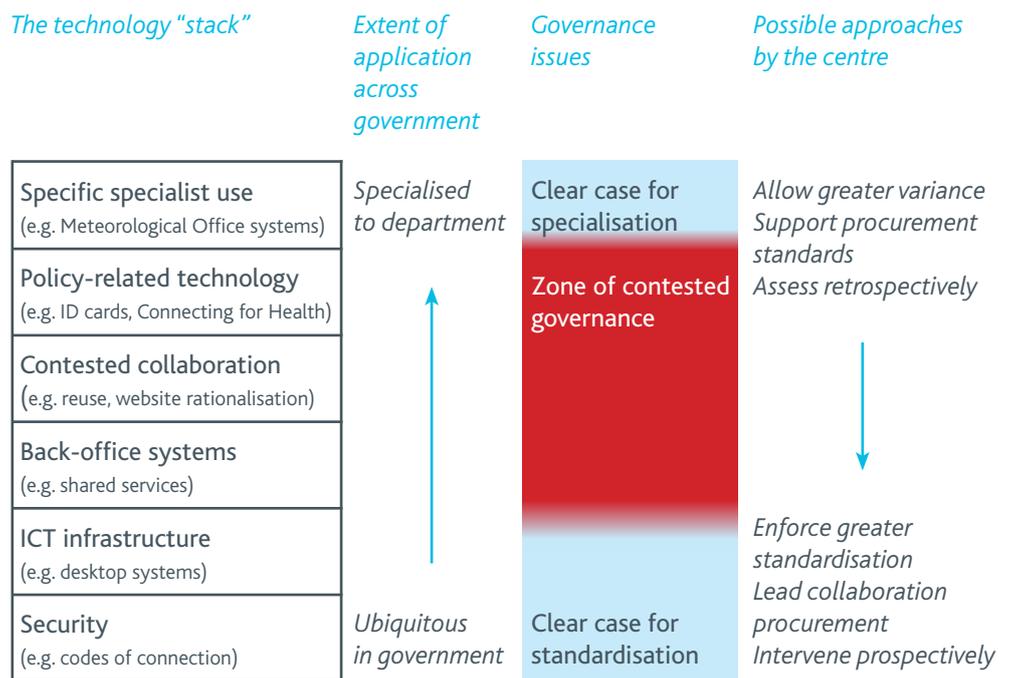


Figure 1: The IT "Stack"

Such a diagram is not intended to prescribe how the centre should act. It merely attempts to show that: a) there is a theoretical case for the centre's greater involvement in IT issues that are more widespread in government; but b) any involvement by the centre needs to understand the competing governance claims that exist. Put simply, the further up the IT stack, the harder it is to sell the benefits of central coordination: departmental claims of competence grow stronger and ministerial commitments loom larger.

What approaches does this suggest for the centre? Lower down 'the stack', it should have a stronger role in prospectively setting out what should be required – perhaps through the IT strategy – and how this affects departments. Higher up 'the stack', the centre's role should be more around retrospectively holding departments to account for their use of IT in achieving goals. This is where, for example, a stronger use of Gateway reviews might be useful; or the centre could contribute expert judgment on the use of IT to wider evaluations. Again, effective evaluation requires departments to have had a clear set of objectives, and the centre to understand how IT contributes to those objectives.

Knowledge and expertise

As just noted, the centre needs robust information in order to intervene strategically and make a convincing case when it does so.⁹¹ The OEP's demand for more sophisticated data is

⁹¹ The Cabinet Office should 'hav[e] information and knowledge to make judgements' Chakrabati (2007), p.2.

a welcome reminder, but the centre needs to be more proactive in gathering information. It needs to take innovative approaches to identify gaps in knowledge and find ways of filling those gaps without placing excessive burdens on departments. We give some possible ways of doing so in the next section. Our interviews suggest that departments may have an appetite for expert, evidence-based guidance from the centre in order to help them make sound decisions on ICT. The CIO council has gone a long way to sharing information and good practices between departments, but there needs to be stronger central capacity.⁹² For example, this could allow the centre to provide 'back-up' institutional memory and continuity for IT projects, since in reality it seems unlikely to 'expect someone to sit in the same role for five or six years to deliver a project'.⁹³

In order to provide this stronger capacity, the centre needs to attract a succession of skilled government IT professionals. As a recent study noted, the 'professionalised stream' in the Civil Service rarely includes a stint in a central agency – unlike 'high-flying' generalist civil servants.⁹⁴ Working for a period in the centre of government should become a standard, even desirable, expectation for government IT professionals. As one interviewee put it, 'not everyone who can do delivery can do strategy, but the Cabinet Office should have some people with operational [IT] experience – it should be an accepted part of the career path that you have a stint in the Cabinet Office.'

Create effective relationships of respect

Discriminating interventions, knowledge and expertise will help to build up respect and ensure the centre is listened to. But alone they are not sufficient to do so: the way in which the centre conducts its business is crucial. A contrast can be drawn with the approach of the office of the e-Envoy. On interviewee said that a Permanent Secretary remarked 'the way they [the Office of the e-Envoy] used to talk to us meant I said, "No," even if I knew they were right'. Departmental leadership not only needs to trust the expertise of the centre, but also have respect for the way it conducts its business.

One obvious way for the centre to ensure a healthy relationship with departments is to show sensitivity to what the department is trying to accomplish. As the Chakrabati Review put it, this should be based on the centre 'tailoring content of involvement and having a "feel" for line Departments' business'.⁹⁵ In this sense, the centre needs to exert "soft power", based on attraction and reputation, as well as targeted attempts to mandate for certain issues.⁹⁶ Personal relationships obviously have a major role to play in creating this soft power. One interviewee argued that success in the current setup is based on 'finding the right person, because we don't have the straight governance lines or the levers of control – you've got to do these things through relationships'. As noted before, interviewees were positive about the current Government CIO's ability to exert such "soft power".

Sensitivity to departments' aims and personal credibility may allow greater scope for judicious intervention by the centre when necessary. Effective relationships of respect should help to mitigate departments' resistance to interventions from the centre.

Authority

If the centre can intervene judiciously, provide high-quality data and guidance, and create

92 The Cabinet Office should 'possess[...] necessary expertise where advice is being sought and given'. Chakrabati (2007), p.2.

93 Ian Watmore, evidence before the Public Accounts Committee, in Public Accounts Committee (2009) *Government Learning and Innovation*, Ev.4.

94 Dunleavy, et al. (2008), p.31.

95 Chakrabati (2007), p.2.

96 Nye (2004) *Soft Power: The means to success in world politics*.

relationships of respect, then it should develop enough authority to implement an effective 'comply or explain' model. Further down 'the stack', the centre would develop a strategy to specify what it wants to standardise across government, so it can act consistently; higher up 'the stack', it would use its judgment to decide what to mandate and what to leave to departments. If done well, there would be broad acceptance that the centre is reasonable when choosing what to mandate. The goal would be to create an authoritative process whereby there would be reputational damage for a department that did not comply or explain in response to the centre's demands.

Authority is enhanced if the actor has access to political or budgetary power. In other words, there needs to be an element of "hard power" (even if it is latent) to complement the "soft power" outlined above. The final section, below, explains how to bring some of this hard power to the centre.

Initial changes to underpin an effective relationship

The new perceptions and behaviours outlined above will take time to develop. They could be prompted by some initial specific changes, which would also underpin the centre's actions with more 'hard' power. We summarise the proposed changes and explain how they would work in practice. However, we wish to stress that the most important point is *how* the centre operates, rather than *where* certain functions are placed. Another reorganisation of structures is unlikely to bring benefits unless it is founded on the vision of the role of the centre outlined above.

1. The centre's lead on IT would be a CIO Unit headed by the Government CIO, supported by CIO council members, and overseen by a Minister of State with a coherent cross-government IT brief. The Unit would be created out of the current Office of the Government CIO in the Cabinet Office. The Unit would be responsible, with its Minister and OGC, for drawing up a robust IT strategy for the whole of government. This IT Strategy would have Cabinet approval and would include a committed budget to fund cross-cutting programmes. The CIO Unit would have enhanced expertise, information-gathering and guidance capabilities, but it would not have delivery capability. Rather, delivery of cross-cutting programmes would be carried out by individual departments. Overall, the most effective location for the Unit may be the Corporate Services Directorate of the Treasury, where it would work closely with OGC. There would be a monthly "Delivery Board" meeting featuring the CIO and OGC's Chief Executive where progress towards joint objectives would be assessed and disputes resolved.
2. The CIO Unit would have two main ways of operating: proactive intervention and oversight. The IT strategy would set out the criteria for matching the approach to the issue, based on the "IT stack" and the strategy's priorities.
3. Proactive intervention would attempt to enforce government-wide standards in those areas where there is a strong case for cross-government coordination and less justification for 'departmental particularism'. In case of disputes between the centre and line department, the issue would be escalated to a strengthened Corporate Functions Board for resolution. The political line of escalation would be up to the PS(X) Cabinet Committee. The Government CIO would have 'double lock' responsibility for approving major IT procurements; this should be a real power of veto that encourages departments to take cross-government factors into account earlier in the procurement process.

4. The oversight function would carry out light-touch monitoring of major department-led IT projects, whether they be cross-governmental or specific to a department's policy remit. In terms of accountability, the Government CIO would brief the Cabinet Secretary on a department's IT performance prior to the performance reviews of permanent secretaries that take place every six months. This briefing would be compiled from monitoring data, Gateway Reviews, reports from the Major Projects Review Group, and expert judgments from the CIO Unit on matters such as cooperation with cross-government agendas.

5. In terms of transparency, the CIO Unit would publish an annual update on progress towards the IT Strategy, including a report on how each department has contributed to the strategy and the amount they have saved through cooperating with cross-cutting agendas (and through their own initiatives). These reports would be formally submitted to the CSR Review process, with the expectation that they would be taken into account in subsequent negotiations. OGC would be able to initiate and publish Gateway Reviews. Oversight would also come from a Parliamentary Select Committee on Major Projects, which would draw on evidence from the CIO Unit, OGC's Major Projects Review Group, and the NAO.

A robust IT strategy

The currently gestating IT strategy should be developed with ministers to ensure that it has explicit political support and contributes to the government's overall strategic objectives. In other words, it should not just be "by IT professionals, for IT professionals". It is important that this strategy establishes clear priorities, rather than giving a vast array of objectives; arguably, the Office of the e-Envoy was hindered by an overly ambitious agenda.⁹⁷

The strategy should be given 'teeth' through a committed budget to fund cross-cutting programmes (such as the current Public Sector Network and G-Cloud initiatives), owned by the centre. If necessary, this budget would be top-sliced from departments' IT budgets. This will be unpopular with departments, but there are two main points to consider: currently, departments do commit resources to cross-cutting projects (by offering employees' time, for example), but this is generally done in a time-consuming manner that increases real costs and opportunity costs for government as a whole. Second, the centre's strategy will be given greater legitimacy through increased political involvement and commitment. Naturally, the form of such political involvement is a crucial point and is considered below. The strategy would be valid for the CSR period, although it would need to have some flexibility so that sudden developments in technology can be accommodated.

A strategic commissioning centre

The centre should oversee the implementation of the IT strategy, but it should not have delivery capacity itself. Creating such delivery capacity would be costly, disruptive and time-consuming; indeed, there is the danger that it would duplicate the capacity that already exists in departments. Rather, the centre should act as a 'strategic commissioner': the centre would select departments to lead particular cross-government projects in the IT strategy according to their capabilities and capacity. There are two important points to bear in mind here: first, the budget available must be appropriate for the task, otherwise it will either fail to generate buy-in from the department or will encourage unnecessary spending; second, there has to be a strong case for why the project is necessary, so departments feel motivated rather than corralled. The practice of having cross-government projects run from delivery-focused departments is already established – for example, DirectGov has been run

⁹⁷ Morgan (2003), pp.30-31.

Central government should seek to produce an 'IT spending dashboard'

successfully from the DWP since April 2008.⁹⁸ Notably, such a setup would help fulfil one of the priorities that the civil service leadership saw emerging from the Chakrabati Review: 'a rigorous funding model for common standards, processes and assets, which supports the rapid implementation of compelling cases, with strong Departmental ownership'.⁹⁹

A centre with the capacity to offer expert guidance

The centre's actions need to be underpinned by a core of expertise. Such expertise would be generated by carrying out wide-ranging analysis of evidence and by hiring staff with operational experience. In terms of analysis, there are many possible ways forward. The CIO Unit or OGC could make greater attempts to 'mine the rich vein of knowledge that [Gateway Reviews] generate', as recommended by the NAO.¹⁰⁰ This analysis should build on the OGC's ongoing 'lessons learned series'.¹⁰¹ Gateway Reviews should be made public to allow wider analysis, as has been recommended by the Public Accounts Committee and figures such as John Suffolk and Ian Watmore.¹⁰² Ultimately, central government should seek to produce an 'IT spending dashboard', just as has recently been launched in the United States.¹⁰³

The centre should offer the information it gathers to line departments in an accessible way. For example, the CIO Unit should provide the facility for CIOs and policy leads to search a central database to identify opportunities to reuse IT components from across government – and it should create the expectation that this database is consulted as a matter of course when initiating projects. It should also have the capability to act as a broker or facilitator between departments when there are significant barriers to achieving reuse.

In terms of experience, the centre needs to become a desirable 'stopping-off point' for IT professionals during their careers. Although the centre will not have delivery capacity itself, its employees need to have significant operational experience to ensure their advice is realistic. The expertise of the CIO unit should be distributed across policy areas as well as across the 'IT stack', perhaps in a matrix structure. This would also help to ensure that the centre is sensitive to departments' objectives. Building this type of capacity would require more resources for the centre, but this would be mitigated by the lack of a need for delivery capacity.

The creation of a CIO Unit in the Treasury

Many interviewees argued that closer working between the Cabinet Office and Treasury would improve the co-ordination of IT in government. In the words of one: 'the Cabinet Office feels a bit like the centre of government without a finance function'. In particular, there are close affinities between the work of the Cabinet Office and OGC. Nevertheless, the disruption of merging the IT competencies of the two organisations would create considerable confusion and seem to dismantle OGC piecemeal. A better solution is to place both bodies in the same department and set up procedures for joint working. Another major purpose of creating the CIO Unit in the Treasury is to create a stronger link between the strategic oversight of IT and the power latent in disbursement functions. Finally, the creation of a new unit attempts to address the reputation problems attached to the Cabinet Office and signal a new phase in the oversight of IT in government.

98 <http://www.dwp.gov.uk/newsroom/press-releases/2008/april-2008/emp071-010408.shtml>

99 O'Donnell (2009) *Letter to Sir Suma Chakrabati*, 22 November 2007. At: http://www.cabinetoffice.gov.uk/media/cabinetoffice/corp/assets/publications/letters/cabinet_secretary/chakrabarti_letter.pdf

100 NAO (2009) *Helping Government Learn*, p.24.

101 http://www.ogc.gov.uk/programmes_and_projects_initiatives_lessons_learn.asp

102 Public Accounts Committee (2009) *Learning and Innovation in Government*; <http://www.computerweekly.com/Articles/2006/07/26/217149/publish-gateway-review-data-says-government-cio.htm>; <http://www.computerweekly.com/Articles/2009/06/10/236371/ex-government-cio-favours-publishing-gateway-reviews.htm>.

103 See <http://it.usaspending.gov/>. This site, launched in July 2009, was built in approximately six weeks and includes the ability for a user to create customised data feeds.

A proactive intervention role

Interventions from 'the centre' may cause friction and unhelpful disputes. Yet, if handled correctly, they are essential to achieving strategic outcomes through technology. The centre would focus on those issues where there is a strong case for savings and a clear need for the centre to co-ordinate. If the centre decides to intervene in issues where departments have stronger claim to governance, then it should be certain that its case justifies the contest that may ensue. The centre will initially intervene in "comply or explain" mode, and should use its expertise to judge whether explanations are valid. If a department neither complies nor explains, the issues should be escalated to the Corporate Functions Board (see below).

As recommended in the *Digital Britain* report, the Government CIO should have a "double lock" in terms of accountabilities and sign off' for departments' major IT procurement.¹⁰⁴ Such a "double lock" should effectively constitute the power of veto. Naturally, it would be undesirable for the veto to be exercised, so the Government CIO (and an OGC representative) must be involved early on in the procurement process – and have a clear position on how the project can best contribute to wider government IT strategy. Doing so would put them in a stronger position to 'ensure that common infrastructure, such as desktops, networks and packaged software, is used wherever possible and that any new infrastructure can be reused across the public sector'.¹⁰⁵

Escalation to the Corporate Functions Board

If disagreements between the centre and a department over IT are to move beyond simple 'strong silo vs. weak abstract agenda', then it is necessary to have a supra-departmental group for escalation and arbitration. Given that the Corporate Functions Board (CFB) aims to 'advise CSSB on the quality and opportunities for development of corporate services across government', it seems the obvious element in the current architecture to take on such a role.¹⁰⁶ Interestingly, our vision for the CFB is very similar to that outlined in the Chakrabati Review:

'CGLB's role... should be widened to include identifying, evaluating, assessing, and approving proposals for common processes in the corporate services. The basic criteria for these proposals should be that these are opportunities to do things in a common way in order to deliver significant returns in customer service and efficiency. The CFLB will need clear authority derived from PSMG and should be supported by a secretariat with a good grounding in analysis and best-practice thinking.'¹⁰⁷

The CFB will also need a collective strategic awareness of wider government priorities in order to make effective decisions. Strengthening the CFB in this way requires a clear signal from the PSMG that it is the legitimate, competent body to arbitrate on corporate functions (including IT). Given that the Government CIO will sit on the CFB, a high-level representative of the line department concerned should have the right to present their case when CFB is making a judgment. CFB decisions would be made on simple majority, although particularly controversial decisions should be sent to Cabinet Committee, if truly necessary.

An oversight role

For some issues higher up the 'IT stack', the centre should offer guidance to departments but allow them operational freedom to achieve the desired outcomes. The centre would, however, maintain light-touch monitoring of progress against these outcomes. Such

¹⁰⁴ DCMS and BIS (2009) *Digital Britain: Final Report*, pp.213-4.

¹⁰⁵ HM Treasury (2009a), p.67.

¹⁰⁶ The Operational Efficiency Review paves the way for such a role by giving the CFB the responsibility for the use of audit agencies' standard value for money indicators across government. Current goals of the CFB are at: <http://www.civilservice.gov.uk/about/leads/governance/sub-groups/corporate-function.aspx>

¹⁰⁷ Chakrabati (2007), p.11.

monitoring would be based on the 'regular, consistent, auditable and transparent' data collection recommended by the OEP and Public Accounts Committee.¹⁰⁸ This monitoring and analysis would feed into the OEP's proposed Operational Reviews. The centre would also be able to make intelligent requests for information that will clearly benefit departments through improved guidance from the centre. For example, OGC could create a cross-government database to identify which contracts are soon to expire, to help coordinate greater collaborative procurement.

The OGC should also be able to initiate its own Gateway Reviews and make them public. When a review receives a Red rating, the OGC should consult with the CIO Unit to draw up a list of remedial actions (not recommendations) that need to be taken under a 'comply or explain' framework. These remedial actions need not be made public: however, if the OGC and CIO Council are not satisfied with the response, they should ask the Parliamentary Major Projects Committee to request that the Permanent Secretary appear and explain why further progress has not been made. Ultimately, the Government CIO and OGC Chief Executive will have the power to recommend to the IT minister that the project be suspended until the necessary actions are taken. We see the Major Projects Directorate of OGC as a crucial part of the proper governance of IT-enabled change projects, but it should ensure that it deals with departments in a coherent and focused way – and the OGC should review whether its current wide range of assessment frameworks and interventions helps achieve such coherence and focus.

In terms of accountability, the Government CIO would brief the Cabinet Secretary on a department's IT performance prior to the performance reviews of permanent secretaries that take place every six months. This briefing would be compiled from monitoring data, Gateway Reviews, reports from the Major Projects Review Group, and expert judgments from the CIO Unit on matters such as cooperation with cross-government agendas. Although outside the scope of this paper, the expectation is that these performance reviews will have 'teeth'.

Holding permanent secretaries to account for IT should mean that they pay more attention to the advice from their CIOs. At the same time, this would decrease tolerance for departmental CIOs who are poor at linking technological knowledge with departmental outcomes. In addition, the CIO Unit would be much more proactive in supporting departmental CIOs in those cases where it has been decided that central intervention is needed. The quality and force of this support would be enhanced by the improved expertise and 'clout' of the Unit, as outlined above.

In terms of transparency, the CIO Unit would publish an annual update on progress towards the IT Strategy, including a report on how each department has contributed to the strategy and the amount they have saved through cooperating with cross-cutting agendas (and through their own initiatives). The editorial content of this report would be entirely up to the CIO Unit, but it must contain a representative set of 'hard' data for each department. We do not wish to deny the government an opportunity to celebrate its successes, but these reports must be credible in order to strengthen the leverage the CIO Unit has over departments. These reports would be formally submitted to the CSR Review process, with the expectation that they would be taken into account in subsequent negotiations.¹⁰⁹ Such a process will strengthen the latent 'hard' power of the centre.¹¹⁰

¹⁰⁸ HM Treasury (2009a), p.64; Public Accounts Committee (2009) *Assessment of the Capability Review Programme*, p.5.

¹⁰⁹ Helen Margetts points out that, in the past, 'fear of the Treasury undoubtedly played a major part in putting departments under pressure to proclaim their projects a success and to conceal mistakes, for fear of endangering future budgets' – Margetts (1999) *Information technology in government: Britain and America*, p.45. The problem of false reporting would be countered by having robust information collection mechanisms, as specified.

¹¹⁰ There are some problems with such a system, of course. Power to aid co-ordination is much weaker if the consequences will only be felt further 'down the line', at which point the actors involved in the original decision may have moved on.

A Minister of State with a coherent brief

The CIO Unit would be overseen by a Minister of State with a coherent portfolio relating to IT across government. The responsibilities of the minister would be: cross-government IT performance, information security and assurance, Directgov, digital inclusion, Digital Britain, and policies relating to the IT sector. Ministers with responsibility for major IT-led projects, such as the NHS's National Programme for IT, would officially report to the head of their department; as mentioned above, the centre would oversee the project in question and intervene if necessary. The political route for escalation would be to the PS(X) Cabinet Committee.

Parliamentary accountability

The current system of matching Select Committees to departments (apart from a few exceptions)¹¹¹ does not reflect the problems currently facing government. In order to provide enhanced scrutiny, we recommend the creation of a Parliamentary Select Committee on Major Projects. The Committee would study the most cost and/or risky 'mission critical' projects across government. The list for selection would be based on the 42 mission critical projects that are reviewed quarterly by the OGC and distributed to permanent secretaries, departments and the Prime Minister.¹¹² The Committee would draw on evidence from the CIO Unit, OGC's Major Projects Review Group, and the NAO. The Committee would have the ability to summon the Senior Responsible Officers for each project to give evidence.

Back to the Future?

An obvious objection to the proposed creation of a CIO Unit in the Treasury is that it effectively recreates the Central Computer Agency (CCA). The CCA went through a few incarnations, so it is worth explaining how our suggestions differ. Prior to around 1982, the CCA's remit involved a level of central control that goes far beyond our recommendations:

'The CCTA at the time actually 'owned' around 80 per cent of administrative computers in government; no department could acquire or use computers without CCTA approval. During the early 1980s, the agency was involved in overseeing all large information technology projects, authorising expenditure, procuring goods and services...'¹¹³

Such a level of control would be stifling and is quite different from the discriminating interventions and strategic commissioning outlined above. Of course, an alternative criticism is that the CCTA in this phase actually failed to influence departments' practice sufficiently. We have introduced some harder powers that would attempt to address this problem: greater approval powers for procurement, a defined escalation procedure, a closer link to disbursement functions, increased leverage through transparency, and stronger political ownership.

From around 1982, the CCTA's competences crumbled in the face of the trend towards decentralisation and it became a central IT agency operating without a central IT strategy, as its Director admitted in 1988.¹¹⁴ From this point, as the CCTA's headcount was cut, the Treasury found it increasingly lacked the technological expertise to scrutinise computer expenditure effectively.¹¹⁵ Our proposals are based on the centre owning a central IT strategy and possess considerable technical expertise.

¹¹¹ For example, the Public Administration Select Committee and the Public Accounts Committee.

¹¹² Nigel Smith, Oral Evidence to the Public Accounts Committee, 14th January 2009

¹¹³ Margetts (1999), p.44.

¹¹⁴ Cited in Margetts (1999), p.44.

¹¹⁵ Margetts (1999), p.45.

The 1995 creation of the Central Information Technology Unit (CITU) in the Cabinet Office effectively split IT strategy from delivery, oversight and IT expertise.¹¹⁶ Again, our recommendations aim to create an organisation that avoids such a split, instead offering a coherent overview of both strategy and delivery and working closely on procurement with OGC (the final resting place for the CCTA's remains).

Finally, criticisms of the Office of the e-Envoy centred on the way it dealt with departments and the tendency for its reports to 'concentrate on developing a positive vibe around e-government rather than engaging in the complex issues of coordination'.¹¹⁷ An integral part of the new CIO Unit would be sensitivity to departments' situation and goals, leading to relationships of respect. Secondly, the CIO Unit would have more of a focus on 'getting things done' in government, rather than promoting the concept of e-government as such. Progress towards the IT strategy would be seen as a partnership between departments and the centre, rather than the sole responsibility of the Unit, which may reduce the need for the centre to concentrate on 'good news stories' at the expense of a balanced overview.

A Finance Ministry

In the longer term, there may be a case for a new Finance Ministry that combines budgeting, efficiency and performance management responsibilities, without oversight of macroeconomic and tax issues. Its responsibilities could be similar to the Canadian Treasury Board Secretariat (see box). This ministry might combine the responsibilities of the CIO Council and OGC to allow a more coherent overview of all the aspects of government IT. The Institute's forthcoming 'Reshaping the Centre' report considers this idea in more detail.

The Treasury Board Secretariat is tasked with providing advice and support to Treasury Board ministers in their role of ensuring value-for-money as well as providing oversight of the financial management functions in departments and agencies.

The Secretariat makes recommendations and provides advice to the Treasury Board on policies, directives, regulations, and programme expenditure proposals with respect to the management of the government's resources. Its responsibilities for the general management of the government affect initiatives, issues, and activities that cut across all policy sectors managed by federal departments and organizational entities. The Secretariat is also responsible for the comptrollership function of government.

Taken from <http://www.tbs-sct.gc.ca/tbs-sct/abu-ans/tbs-sct/abu-ans-eng.asp>.

It is clear, though, that any such changes would lead to major changes to the way that the centre and departments interact over IT issues. One option could be to formalise the IT powers and responsibilities of such a Ministry through legislation. An obvious point of comparison is the US Clinger-Cohen Act, which ensured that departmental CIOs' advice has by law to be noted when IT decisions are made. The Act also established the Council of Chief Information Officers (CCIO), which has its own staff to advise the President on government-wide IT issues.¹¹⁸ In 1999, the CCIO developed a Federal Enterprise Architecture Framework to achieve greater co-ordination over IT developments:

¹¹⁶ Organ (2003), p.28.

¹¹⁷ Organ (2003), p.31.

¹¹⁸ Dunleavy, *et al.* (2008), p.92.

An EA [Enterprise Architecture] is the explicit description and documentation of the current and desired relationships among business and management processes and information technology... Agencies must implement the EA consistent with following principles:

(i) Develop information systems that facilitate interoperability, application portability, and scalability of electronic applications across networks of heterogeneous hardware, software, and telecommunications platforms;

(ii) Meet information technology needs through cost effective intra-agency and interagency sharing, before acquiring new information technology resources; and

(iii) Establish a level of security for all information systems that is commensurate to the risk and magnitude of the harm resulting from the loss, misuse, unauthorized access to, or modification of the information stored or flowing through these systems.¹¹⁹

Although moving to such a system may have advantages (and the enterprise architecture specified above addresses many of the problems we have highlighted in this report), there are reasons to be cautious. As noted above, departments generally resist edicts from the centre; any move to a statutory basis will need to ensure that the centre does not rely on that statutory basis *alone* as a source of power. One of the main successes of the current model has been the collegiality that has evolved between actors (if not always leading to action), and this should be retained where possible. A move to a statutory basis raises the possibility of a setup based purely on compulsion and grudging compliance. This is not inevitable, of course. But there is an argument for increasing the hard power of the centre while trying to maintain the best elements of collegiality, which should be borne in mind when considering any “big bang” move to a Finance Ministry with statutory powers.

¹¹⁹ Office of the Management of the Budget (2000) *Circular No. A-130 Revised*, Section 2a.

Conclusion

This report does not recommend that the centre extends its reach into all aspects of government IT. But there are clearly some areas where greater central coordination and direction will ensure improved efficiency and effectiveness. Where the evidence is clear and the need is pressing, the centre needs real power to act swiftly and decisively. Our recommendations would ensure that the centre has such power, while retaining the advantages of the current setup, such as apt strategy and strong personal relationships. Given the need to meet complex challenges with constrained resources, the need for a strong yet smart centre has never been greater.

This report is about information technology but, ultimately, the problems we have identified are embedded in the wider issue of inter-departmental coordination as a whole. Better governance of IT will help inter-departmental coordination, but ultimately it is likely to fail if these wider issues are not addressed. That is why the Institute is tackling the role of the centre of government in its forthcoming 'Reshaping the Centre' report.

Glossary

CCTA: Central Computer and Telecommunications Agency

CFB: Corporate Functions Board

CIO: Chief Information Officer

CITU: Central Information Technology Unit

CSR: Comprehensive Spending Review

CSSB: Civil Service Steering Board

DfID: Department for International Development

DWP: Department for Work and Pensions

EA: Enterprise Architecture

HMRC: Her Majesty's Revenue and Customs

HMT: Her Majesty's Treasury

IT: Information Technology.

*'Information and communications technology services refer to the total process for acquiring, storing, manipulating or disseminating data and information.'*¹²⁰

LSE: London School of Economics and Political Science

NAO: National Audit Office

NPfIT: National Programme for IT

OeE: Office of the e-Envoy

OECD: Organisation for Economic Cooperation and Development

OEP: Operational Efficiency Programme

OGC: Office of Government Commerce

PAC: Public Accounts Committee

PPM: Project and Programme Management

PSMG: Permanent Secretaries' Management Group

¹²⁰ <http://www.public-audit-forum.gov.uk/ICTPI0708.pdf>

Selected “IT Ministers” since 1999

Note: the informal title of “IT minister” or “e-Minister” has been applied to ministers who fall broadly into two camps: those whose main responsibilities relate to e-commerce (a brief that has now disappeared) and those whose work was framed as e-government. Since the two streams overlapped, they are presented separately below. Given the difficulties in assigning responsibilities precisely, this list cannot claim to be comprehensive.

“E-commerce” strand

Period	Name	brief and title
July 1999 - June 2001	Patricia Hewitt	Small business and e-commerce (Minister of State, Department of Trade and Industry)
June 2001 - May 2002	Douglas Alexander	E-commerce and competitiveness (Minister of State, Department of Trade and Industry)
May 2002 - September 2004	Stephen Timms	E-Commerce and Competitiveness; (from June 2003) Energy, E-Commerce and Postal Services (Minister of State, Department of Trade and Industry)
September 2004 - May 2005	Mike O’Brien	Energy and E-commerce (Minister of State, Department of Trade and Industry)

"E-government" strand

May 2002 - June 2003	Douglas Alexander	e-Transformation (Minister of State, Cabinet Office)
June 2003 - September 2004	Douglas Alexander	Better regulation, public service reform e-government (Minister for the Cabinet Office)
September 2004 - Dec 2004	Ruth Kelly	(Minister for the Cabinet Office)
December 2004 - May 2005	David Miliband	Public sector and civil service reform, e-government; Civil Contingencies Secretariat (Minister of State, Cabinet Office)
May 2005 - May 2006	Jim Murphy	Transformational government; better regulation and public service modernisation (Parliamentary Secretary, Cabinet Office) ¹²¹
May 2006 - June 2007	Pat Mcfadden	Social Exclusion and Transformational Government (Parliamentary Secretary, Cabinet Office)
June 2007 - January 2008	Gillan Merron	Transformational Government and East Midlands (Parliamentary Secretary, Cabinet Office)
January 2008 - July 2009	Tom Watson	Digital Engagement and Civil Service Issues (Parliamentary Secretary, Cabinet Office)
May 2008 - June 2009	Paul Murphy	Digital Inclusion, data security and information assurance (Parliamentary Under-Secretary of State, Ministry of Justice); also Secretary of State for Wales
June 2009 -	Angela Smith	Office of Government Chief Information Officer Information Security and Assurance, Third Sector, Social Exclusion (Minister of State, Cabinet Office)
July 2009 -	Stephen Timms	Digital Britain (Parliamentary Under-Secretary of State, BIS); also Financial Secretary to HM Treasury
June 2009 -	Jim Knight	Employee and Welfare Reform, including Digital Inclusion, Directgov (Minister of State, Department of Work and Pensions); also Minister for the South West

¹²¹ Included many other informal ministerial responsibilities. See Dods (2009) *Jim Murphy MP – Profile*.

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2 Carlton Gardens
London
SW1Y 5AA

Tel: +44 (0) 20 7747 0400

Fax: +44 (0) 20 7766 0700

www.instituteforgovernment.org.uk

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