System upgrade? The first year of the Government’s ICT strategy

Sir Ian Magee, Tom Gash and Justine Stephen
Information technology (ICT) is taken for granted by all of us in a way that was inconceivable, except by the most far-sighted futurists, just 15 years ago. Today, it is integral to business success, and increasingly, to the way we all live our lives. For the Government, the issues are the same. Yet, ICT in government has a chequered reputation at best. It comes to public attention only when one of the several well-publicised “ICT disasters” hits the headlines. That disguises the fact that much of the business on which the public depends – the payment of benefits, collection of taxes, provision of online services – proceeds unheralded and largely without a hitch.

There remains though concern about the extent of the Government’s ICT spend, and about the areas that do go wrong. The Government approaches towards ICT development are rooted in the distant past. As we illustrated in our previous report, System Error, a different way forward would concentrate on a shared and stronger “platform” to drive down cost and reduce duplication, together with a much more innovative modular and iterative approach to ICT projects, which we described as “agile”, towards future development.

This follow-up report examines the Government’s ICT strategy, which was published shortly after System Error and adopted some of its recommendations. The Government recently published its own assessment of progress. The headline from our examination of the evidence is that the ICT community in government has indeed taken some important steps forward. We set out examples in this report. We found though that there is more work to be done. There should be better engagement of senior business leaders in government working together with ICT leaders towards a strategy which is collectively embraced. The innovative approaches to development for which we argued in System Error could be developed much further. Questions also remain around accountability, measurement, and a common approach towards improvement. It is, in our view, crucial therefore that ICT is given the priority it needs among the Government’s policy and business leaders. It is after all critical not just to the success of future policy development but also to the Government’s drive to deficit reduction.

The Institute acknowledges the good start which the Government has made in implementing its strategy; but urges that more progress needs to be made. We shall continue to watch this space!

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Executive summary

Information and communications technology (ICT) is integral to modern government. Public services – taxes and benefits, identity services, and health records – are increasingly delivered electronically. Within Whitehall, ‘paper pushing’ is moving into the digital age, with civil servants increasingly collaborating, recording and reporting online. In the current age of austerity, ICT is not just a cost to be cut but an area which can enable savings, helping public servants to work more effectively and providing critical information about areas where savings can be made.

Despite progress, however, there remain areas where government stumbles. Select committee reports continue to highlight high-profile ICT failures and raise concerns over whether government has the skills and expertise to exploit the opportunities that ICT provides. Many are acutely aware too of a growing ‘expectations gap’ as citizens and public servants are becoming frustrated when the tools and services available seem to lag behind private sector offerings.

A new approach

Many in government are acutely aware of current risks and opportunities and are taking action. From 2010 to 2011, the Institute for Government worked with practitioners and experts inside and outside government to produce our report System Error, which identified two priorities for improving government ICT: First, the creation of a far stronger ‘platform’ – a shared, government-wide approach to driving down costs, reducing duplication and establishing common standards to support interoperability. Second, the roll-out of ‘agile’ methods aimed at embedding a more modular and iterative approach in ICT-enabled change projects.

Many System Error recommendations were subsequently fully or partially adopted in the Government’s ICT strategy, published in March 2011. The focus on platform and agile was clearly reflected as lead departments were given responsibility for specific projects aimed at driving cross-government standardisation and agile development.

Early progress

In March this year – one year on from the strategy’s publication – the Institute embarked on a high-level review of progress in delivering the ICT strategy in order to identify opportunities to accelerate its effective implementation, and to learn lessons about ‘what works’ when attempting to drive change across government.

Just one year on, there has been significant progress. The Government’s own One Year On update report, published in May 2011, presents the tangible changes, which include: wider adoption of the new Public Service Network (PSN) framework; the creation of a new

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1 Roger James, John Keeling, David Lister, Bill McCluggage, and Annette Vernon

‘CloudStore’; the creation of the Government Digital Service; and use of agile development, with around half of all departments reporting that they are running projects using agile principles. The Government also estimates cost savings of £159.6 million on government ICT as a result of tighter expenditure controls and re-use of existing ICT solutions across government.

Our research did not attempt to validate these benefits and savings quantitatively. However, interviewees noted that the spending controls process had generated real efficiencies, PSN and Cloud were generally felt to be progressing well, and agile methods were being vigorously pursued by the Government Digital Service and other enthusiasts working on smaller projects. On the other hand, there were voices of scepticism. Some noted that reductions in upfront contract costs have not always led to realised long-term savings in the past, and cautioned that project scope creep or change requests could reduce actual savings in future. Similarly, most felt that agile was far from becoming the default for ICT-enabled change projects and that agile had received far less focus than ‘platform’ components of the strategy.

There are positive signs, however, that some of the foundations for further success have already been put in place. The vast majority of ICT leaders recognise the need for change and support the principles and projects underpinning the ICT strategy. Our research showed too the encouraging emergence of a group of individuals in leadership positions who are recognised as driving ICT change.

Furthermore, there are stronger incentives to change than in the past owing to the creation of the chief information officer (CIO) delivery board; clear accountability for specific strands of work; the use of the spending controls process; and strong ministerial support.

Leaders are aware of most of the barriers to effective implementation and are already starting to address them. Our research suggests that the priority areas include:

- **bringing it all together:** the ICT strategy is often seen as a collection of “rather technical”, discrete strands of work. CIOs recognise the need for a strong narrative of what the strategy will mean for citizens and ICT users, not just those working in central government departments (in various roles) but across the wider public sector where the bulk of ICT expenditure currently occurs. A clear narrative will help to define what success looks like and ensure those implementing the strategy can identify and address interdependencies between different components of the strategy, and connect the strategy to other reform programmes across government. It will also ensure that priorities can be more clearly identified.

- **measuring for success:** as the Government’s own One Year On report recognises, the Government does not yet produce sufficiently robust mechanisms for measuring the success of the ICT strategy.  Given the historic lack of a central role in comparing ICT metrics across departments, this may be understandable – but the lack of robust, comparable management information creates major risks. Cost savings may, for example, be made at the expense of quality or elements of the strategy might be delivered to the detriment of performance in other areas.

- **securing departmental interest and resource:** funding models (for example levies) are emerging for some workstreams (such as PSN) but other strategy activities have not yet secured the resources required. These resources are not simply dedicated staff or investments, but also the time of already stretched departmental staff – particularly as focus shifts towards changing procurement and project management practices. Most resource decisions will ultimately be made at departmental board level, a reality that underlines the need to simply articulate ICT strategy benefits and priorities to the wider civil service leadership.

### The future of the ICT profession

Addressing these areas will improve the chances of the ICT strategy leading to long-term improvements but there are wider challenges for the government ICT profession. In chapter five, we put forward a range of recommendations which aim to promote a new relationship between ICT professionals and departmental leaders – one in which departmental leaders are more demanding of ICT, and ICT professionals are more demanding of board level colleagues.

Another long-term challenge for the ICT profession – and for government more widely – relates to how staff are rewarded for contributions that benefit the whole of government more than their ‘home’ department. Currently, and very worryingly, none of the ICT leaders we surveyed as part of this research felt that they would be appropriately rewarded for their contributions to delivering the ICT strategy. In chapter five, we therefore discuss potential ways to ensure that corporate contributions are more rewarded and valued, and to ensure that the ‘whole government’ view of ICT has an appropriate influence on departmental decision-making. In System Error, we recommended an independent government CIO with stronger powers to mandate and reward and we still consider this model critical to long-term improvements in ICT across government. However, we also now recognise that implementing this model will also require wider reform to top level civil service accountabilities.

### A firmer foundation?

It is perhaps inevitable that a review one year into a major programme for change should conclude that it is too early to judge success. This review, however, suggests that there has already been progress and some of the foundations have been laid for future progress. Nonetheless, there remain areas where concerted action is needed now in order to ensure that this strategy leads to the sustained improvements in ICT effectiveness that government is committed to achieving.

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1. Aims and method

Purpose of this report

This report aims to:

1. assess how effectively the ICT strategy is being implemented, and its impact on the overall effectiveness of government ICT

2. assess whether steps taken so far have created a firm foundation for future progress in delivering the Government’s ICT strategy and improving government’s use of ICT

3. identify potential ways to accelerate the implementation of the ICT strategy and maximise its impact on ICT effectiveness

4. learn lessons about ‘what works’ when attempting to drive change across government. A range of Institute for Government research projects have highlighted the challenges of improving cross-departmental co-ordination and driving change across Whitehall’s federated system.¹

Methodology

The research that forms the basis for this report was conducted between April and June 2012. The research was based on the Institute’s framework and methodology for evaluating government change and transformation in real-time, which assesses:

- whether there is compelling vision for change, including a clear recognition that change is needed and support for the direction of travel
- whether there is strong leadership and engagement, with a coalition of leaders who feel responsible for driving change and have clearly communicated the vision to those involved in delivering changes
- whether leaders are enabling rapid progress, by empowering others to act on the vision, removing obstacles to change and planning for and creating short-term wins⁶

In addition to assessing progress against these dimensions, the research tested tangible progress against specific ICT strategy commitments.

¹ See, for example, Rutter et al (2012), It Takes Two on management of arm’s-length bodies and McCrae, Stephen et al (2012) Effective Use of Management Information

⁶ Gash, McCrae, McClory, 2011, at: http://www.instituteforgovernment.org.uk/publications/transforming-whitehall-departments. The original Institute methodology outlines eight areas of assessment but the last two steps are not relevant for this research given the early stage of ICT strategy implementation. The remaining six areas have been simplified into three key areas of investigation in this report to facilitate more effective communication of research findings.
A number of research tools were used to understand progress, namely:

- 20 semi-structured interviews of departmental CIOs, select CIO direct reports, procurement professionals, and individuals working in the Government Digital Service
- a survey of selected government CIOs, their direct reports and commercial and procurement leaders
- two focus groups with the ICT services supplier community, including representatives of major suppliers and small to medium enterprises (SMEs)
- documentary analysis of government, National Audit Office (NAO) and other reports on ICT strategy implementation, plus analysis of CIO delivery board papers
- unstructured interviews and discussion with senior leaders to inform our understanding of the business context in which ICT change is taking place
- observation, including observation of the CIO delivery board
- a reunion of the Improving Government ICT Taskforce to discuss project findings and to develop suggestions for future improvements – the Taskforce was initially assembled in 2010 to guide the Institute’s research leading up to the publication of System Error.

There are limitations to this research methodology, necessitated by the timescales and resources involved. First, it is too early to make a full evaluation of progress and this research can therefore only provide interim judgements on likely strengths and weaknesses of the current approach to ICT strategy implementation. Second, the team has not conducted quantitative research to validate government’s own cost saving and performance improvement estimates.

2. Background

Context

ICT is integral to public services, just as it is to our daily lives. Take any government service and ICT runs through it. For example, tax returns are completed online; calls made to tax offices are logged on Her Majesty’s Revenue and Custom’s systems; databases are searched to resolve queries; tax office managers use software packages that help them to track and manage performance, and policymakers in the Treasury and Her Majesty’s Revenue and Customs work through ICT to develop the policies that dictate our tax system’s rules.

Examples of the transformational impact that ICT can have on government performance abound. To take some recent innovations, Scotland has created a powerful new online job-search tool to help citizens back to work; NHS Trusts have created new portals to help staff to procure vital equipment more cheaply and easily; and the police.uk website now informs residents not just of crime rates in their neighbourhoods but of whether individual criminal cases have been solved.⁷

Nonetheless, a succession of reports shows that government ICT is not always as effective as it might be.⁸ Major ICT projects succumb to high-profile failures and the cost of making changes to legacy systems can appear exorbitant in comparison to newer ICT solutions offered by the market. Opportunities to exploit new technologies are too frequently spurned, despite the falling costs of data storage and analytics, high-powered mobile technologies and open-source software.

As we wrote in System Error, the risk is that government is left behind. Citizens are becoming increasingly dissatisfied with services in comparison to simpler private sector interactions. Public servants are increasingly frustrated that the ICT they use in their private lives appears to be far more advanced than the tools available to them at work. Indeed, there are already examples of employees circumventing the ICT that government provides them as they attempt to perform their job more effectively: creating what is known as a system of ‘shadow ICT’ that creates significant challenges for maintaining government security, collaborative working and government knowledge management.

The context in which the government must continue to innovate and develop its ICT capability is extremely challenging. Departmental budgets are falling, with headcounts in Whitehall departments down by on average 11% since the 2010 spending review.⁹ Some departments have experienced more radical reductions: for example the Department of Communities and Local Government has reduced headcount by over a quarter.¹⁰ The ICT community has not escaped these headcount reductions, and is often also subject to significant restrictions on the use of contractors and salary constraints. As part of the

government’s expenditure reduction drive, the Government started an ‘ICT moratorium’ in July 2010, under which all projects with an ICT component involving contracts (or contract variations) worth over £1 million, had to be approved by the Treasury.¹¹

System Error

From 2010 to 2011, the Institute for Government conducted a major review into government ICT, working with practitioners and experts inside and outside government. As part of this project, the Institute supported and assessed the implementation of an ICT project which used agile project management methods, working with the Metropolitan Police Service and the SME provider, IndigoBlue.

The report that flowed from this research, System Error, highlighted two priorities for improving government ICT. First, the creation of a far stronger ‘platform’ – a shared, government-wide approach to increasing cost-effectiveness, reducing duplication and establishing common and open standards to support interoperability.

Second, the roll-out of ‘agile’ principles into ICT project delivery. Traditional Waterfall or V-model ICT projects attempt to set out all their requirements upfront and then deliver them. But too often the solutions they create are outdated by the time they are delivered and attempts to change course mid-way are often costly, as flexibility is not built in upfront. AGILE development entails a more modular and iterative approach, one where users are closely involved throughout development. AGILE projects deliver real functionality quickly and then build additional functionality – in the order the business wants it – based on strong input of user representatives throughout.

System Error made several recommendations to promote these two priorities, namely:

1. The government CIO should govern which elements of government IT fall within the platform and which should remain outside for agile development. To do this effectively, the government CIO must operate independently of departmental interests.
2. The platform should focus relentlessly on three areas: commoditisation, rationalising the management of common elements of government IT and setting common standards.
3. Delivery of elements in the platform should be undertaken by lead departments, on behalf of the Government as a whole.
4. Clear governance and escalation structures are required to resolve disputes between lead departments and other departments. The government CIO should be the first point of arbitration and the Public Expenditure Committee should provide the ultimate point of authority.

5. During 2011/12 all government departments should run several upcoming projects using agile development principles – the exact number should be guided by the size of the department and collectively be weighty enough to act as a real catalyst for change within the department.
6. Future IT and project management training for government employees should include a significant component of agile methods training. Departments should also help develop agile ‘centres of excellence’ to provide support, resources, training and coaching.
7. All departments should review governance, project approval processes and legal arrangements to ensure that they can be made to work with agile projects. As part of this, the Cabinet Office should investigate and implement an assurance process to replace the Gateway Review for agile projects.
8. Government departments should ensure that all future supply contracts can be made to work with a more flexible and iterative approach to development. This should include licensing and supplier change requests. This review should be led by the Centre in order to avoid duplication at the departmental level.

The ICT strategy

On 30 March 2011, the Government published its ICT strategy, fully or partially adopting several System Error recommendations. System Error’s focus on platform and agile was clearly reflected and lead departments were given responsibility for specific projects aimed at driving cross-government standardisation and agile development.¹²

As part of the ICT strategy, the Government established a new governance model to drive ICT improvement, shown in Figure 1. The biggest change to ICT governance was the creation of a new CIO delivery board, chaired by government CIO (then Joe Harley and currently Andy Nelson) and comprising the deputy government CIO (then Bill McCluggage and now Liam Maxwell) and the CIOs of the six largest Whitehall departments. At the time of writing, the chief procurement officer, the head of the Government Digital Service and the group commercial director also sit on this governance body, in order to support co-ordination across various reform initiatives in procurement and improve links with the digital agenda.

The delivery board supplemented (and in some ways superseded) roles performed by existing the CIO Council, a large representative body comprising all government CIOs, agency CIOs and other ICT community representatives.¹³ The CIO Council is also chaired by the government CIO and meets periodically to discuss ICT priorities.

¹² The ICT strategy document structure reveals this focus, with four category headings: Reducing Waste and Project Failure, and Stimulating Economic Growth; Creating a Common ICT Infrastructure; Using ICT to Deliver and Enable Change; and Strengthening Governance.
¹³ The Government Chief Information Officer (CIO) Council was formed in January 2005. The CIO Council was the first initiative to bring together CIOs from across all parts of the public sector to address common issues. Further details can be found at: http://www.cabinetoffice.gov.uk/sites/default/files/resources/CIO-council.pdf
The ICT strategy did not, therefore, adopt the System Error recommendation that ‘platform’ and ‘agile’ should be driven by a strong, independent CIO – instead relying on the CIO delivery board to strengthen strategy governance and promote the ‘whole of government’ view.

3. What’s happened?

ICT strategy implementation plan

In November 2011, the Government followed up the ICT strategy with its strategic implementation plan (SIP) which detailed concrete activities and plans to support strategy implementation. The SIP provided further clarity on the 19 key workstrands that would support the strategy, shown in Figure 2, with each delivery board CIO given specific areas of responsibility, as shown in Figure 3.

Figure 2: The 19 Strands of the government ICT strategy

<table>
<thead>
<tr>
<th>Objective 1: Reducing Waste and Project Failure, and Stimulating Economic Growth</th>
<th>Objective 2: Creating a common ICT infrastructure</th>
<th>Objective 3: Using ICT to enable and deliver change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asset and services knowledgebase</td>
<td>Open standards for data</td>
<td>Data centre consolidation</td>
</tr>
<tr>
<td>Open source</td>
<td>Reference architecture</td>
<td>End user device strategy</td>
</tr>
<tr>
<td>Procurement</td>
<td>Open technical standards</td>
<td>Green ICT</td>
</tr>
<tr>
<td>Agile</td>
<td>Cloud computing and applications store</td>
<td>Information strategy</td>
</tr>
<tr>
<td>Capability</td>
<td>Public services network (PSN)</td>
<td>Risk management regime</td>
</tr>
<tr>
<td></td>
<td>Data centre consolidation</td>
<td></td>
</tr>
</tbody>
</table>

Figure 3: ICT strand responsibilities

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14 Taken from Cabinet Office (2011) Government ICT Strategy at: http://www.cabinetoffice.gov.uk/content/government-ict-strategy
The structural implementation plan (SIP) set out a number of milestones for the strategy, running to 2016, which are shown in Figure 4, below. It is notable that a number of these milestones are admirably ambitious: for example the commitments to ensure that 50% of ICT projects employ agile development principles by April 2013 and to make 80% of government telecoms PSN compliant by March 2014. Other short-term objectives, such as the creation of strategies for all workstreams, were focused on further refining and clarifying plans in areas where thinking and activity was less advanced.

### Figure 4: ICT strategic implementation plan milestones

<table>
<thead>
<tr>
<th>Key Milestone</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>100% of central departments have access to the ICT Asset and Services Knowledgebase and can input, discover and output data</td>
<td>September 2011</td>
</tr>
<tr>
<td>Cloud Computing Strategy published</td>
<td>October 2011</td>
</tr>
<tr>
<td>End-User Device Strategy published and delivery programme commenced</td>
<td>October 2011</td>
</tr>
<tr>
<td>Green ICT Strategy published</td>
<td>October 2011</td>
</tr>
<tr>
<td>ICT Capability Strategy published</td>
<td>October 2011</td>
</tr>
<tr>
<td>First release of a draft suite of mandatory Open Technical Standards published</td>
<td>December 2011</td>
</tr>
<tr>
<td>First draft of reference architecture published</td>
<td>December 2011</td>
</tr>
<tr>
<td>Publication of cross-government information strategy principles</td>
<td>December 2011</td>
</tr>
<tr>
<td>High-level information risk-management governance process designed agreed</td>
<td>December 2011</td>
</tr>
<tr>
<td>Roll-out of ‘lean’ sourcing process</td>
<td>January 2012</td>
</tr>
<tr>
<td>Data Centre standards published</td>
<td>February 2012</td>
</tr>
<tr>
<td>Core PSN capabilities delivered and services available to allow sharing of information between customers regardless of whether they are on the new PSN or legacy environments</td>
<td>March 2012</td>
</tr>
<tr>
<td>A set of open standards for data adoption established and progressed by government departments, driven by the Open Standards Board</td>
<td>June 2012</td>
</tr>
<tr>
<td>50 accredited products on the Government Application Store</td>
<td>December 2012</td>
</tr>
<tr>
<td>Full implementation of End-User Device Strategy commences</td>
<td>January 2013</td>
</tr>
<tr>
<td>Agile techniques used in 50% of major ICT-enabled programmes</td>
<td>April 2013</td>
</tr>
<tr>
<td>80%, by contract value, of government telecommunications will be PSN compliant</td>
<td>March 2014</td>
</tr>
<tr>
<td>50% of central government departments’ new ICT spending will be transitioned to public cloud computing services</td>
<td>December 2015</td>
</tr>
<tr>
<td>Cost of data centres reduced by 35% from 2011 baseline</td>
<td>October 2016</td>
</tr>
</tbody>
</table>

Alongside SIP milestones, the Government made additional commitments in each work strand, and required each work strand to make rapid progress on identifying, collecting and publish of a range of detailed metrics.

### The NAO view – six months in

Shortly after SIP publication, in December 2011, the NAO published its review of the first six months of work on the Government ICT strategy. The NAO found that progress had already been made commenting: “The Government’s ICT Strategy is in its early days and initial signs are good.”

However, they did also raise several challenges, including:

- a lack of a system to measure sustained change arising from implementing the strategy across central government
- an absence of a clear resource plan to support the strategy which results in short-term capacity and capability gaps hindering progress
- insufficient planning by the Delivery Board on when and how central government bodies would adopt the strategy solutions

### The Government view – one year on

Just one year into strategy implementation, the Government reported on the tangible progress it had made in implementing the ICT strategy. In its One Year On update report, published in May 2012, the Cabinet Office reported on considerable progress, including:

- **Progress in developing the cross-government platform:** eight regional initiatives which involve collaborations between local government, fire services, police forces and health trusts have procured and implemented Public Service Network (PSN) accredited or aligned network environments, and frameworks are in place to support wider use of PSN as existing government contracts come to their conclusion. PSN successes have been built on efforts that pre-date the strategy but the Government’s development of a new procurement platform (G-Cloud CloudStore) has been largely developed since the strategy was published, and the Government points to early examples of government agencies using CloudStore to procure services.

- **Use of agile development:** the Government reports that 57% of government departments are running one or more ICT projects using agile development.

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• **The creation of the Government Digital Service**: the new GDS has delivered a range of customer-facing projects demonstrating the use of agile principles and open standards along the way.

• **Financial savings**: The Government claims savings of £159.6 million on government ICT as a result of tighter expenditure controls and efforts to ensure existing solutions are re-used across government. It is not possible for us to validate these savings which will be examined by the NAO in future, but it is clear that there are several examples of the spending controls identifying real efficiencies.

• **Performance improvements**: The Government can also point to a number of major ICT-enabled change programmes being delivered by departments in a way that improves government performance.

### Reflections on tangible progress

Many aspects of these improvements were endorsed and validated by those consulted through our research. The PSN and Cloudstore elements of the cross-government programme were recognised by all as some of the most significant achievements of the strategy to date. There was also recognition from both the supplier and government community that there were pockets where agile was being more widely deployed, and particularly a widespread recognition that GDS were pioneering agile as their default approach to ICT-enabled change. And we heard, from CIOs in particular, several examples of occasions when the approvals process had identified efficiency savings.

In a few areas, however, the extent of tangible progress was challenged and government’s ability to hit the milestones set out in its SIP was questioned. This was particularly true in relation to agile. For example, while just over half of government departments may be running an agile project, there were concerns that these were often very minor projects running on the fringe of the departments. Similarly we heard concerns from the supplier community and those inside government that in some areas projects may be being labelled as ‘agile’ without having really changed the way in which they were run.

There was also an element of challenge to the savings figures provided by government. For example, some from government and the supplier community questioned whether the numbers represented genuine savings or just cuts in the services provided or deferred expenditure. Others noted that reductions in up-front contract costs have not always historically led to realised savings in the longer term – and cautioned that project scope creep or change requests could reduce actual savings in time. It was pointed out that the NAO will scrutinise whether savings have been achieved in future, which was seen as a clear incentive for accuracy – but there were, nonetheless, concerns that pressure to provide large savings figures meant that inadequate attention might be paid to verifying the savings, or establishing whether reductions in costs were leading to negative effects on performance.

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18 The major exception here is the Universal Credit programme which is drawing on some agile techniques

### 4. Are there firm foundations for further progress?

The ICT strategy sets out a long-term programme of change that clearly cannot be fully implemented in just one year. Therefore, while measuring tangible progress to date is vital, perhaps the most important question now is whether actions taken in the past year have laid the necessary foundations for longer term success. Our research therefore asked:

• whether there is compelling vision for change, including a clear recognition that change is needed and support for the direction of travel

• whether there is strong leadership and engagement, with a coalition of leaders who feel responsible for driving change who have clearly communicated the vision to those involved in delivering changes

• whether leaders are enabling rapid progress, by empowering others to act on the vision, removing obstacles to change and planning for and creating short-term wins.

### Compelling vision for change

**Summary points**

- CIOs say that this strategy feels more ‘real’ – there is a tangible programme for change spurred on in part by wider government cost pressures and rising expectations of ICT.

- Most believe the strands in the strategy are sensible – but do raise questions about prioritisation and how the different elements can be brought together as a coherent narrative – especially one that speaks to the wider departmental leadership.

- There remains little clarity on what success looks like for the strategy.

A compelling strategy must contain a clear articulation of what it is trying to achieve and why it is important to move in that direction.

Among the CIOs we interviewed, there was a clear recognition that government ICT needed to improve. Several people noted that this was being driven by increased citizen and user expectations: “You expect an Amazon experience from a government department.” The wider government focus on driving down costs has also been critical to

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19 More than 80% of those surveyed agreed that “There is strong recognition in my department that government needs to change the way it does ICT”, Institute for Government ICT survey, 2012

20 Institute for Government ICT interview, 2012
the creation of a ‘burning platform’, particularly for efficiency in procurement. As one ICT lead noted, a lack of money was ‘always helpful’ in driving change as it promoted cross-government solution-sharing and led to more rigour in approving new spend.21

Other government actions increased this sense of urgency for change. Both ICT leaders and suppliers felt that the ICT moratorium had been a helpful stimulus for increased focus on value for money. New ways of working in the new Government Digital Service and the opening up of government through the Transparency agenda were also seen as providing a challenge to existing norms.

The vast majority we spoke to inside and outside government supported the direction of travel set out in the strategy, with only a few voices dissenting from the view that an emphasis on creating a stronger cross-government platform and shifting towards agile delivery methods was crucial to improvement, as shown in Figure 5.

Figure 5: IFG survey – I believe that agile / platform is crucial

<table>
<thead>
<tr>
<th>Platform:</th>
<th>I believe that the agile techniques / platform (greater standardisation / commoditisation / shared ICT delivery) is crucial</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly disagree</td>
<td>Disagree</td>
</tr>
</tbody>
</table>

There was also confidence among ICT leaders that this ICT strategy would not just collect dust on a shelf. The majority of ICT leads and other delivery board members stated that they believed the ICT strategy would benefit their department and government as a whole (see Figure 6). This confidence was less apparent in the attitudes of suppliers who were, on the whole, more sceptical of government’s ability to drive change, though again generally supportive of the direction of travel.

Figure 6: IFG survey – I believe that the ICT strategy will lead to improvements in my department / across government

<table>
<thead>
<tr>
<th>Across government:</th>
<th>In my department:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly disagree</td>
<td>Disagree</td>
</tr>
</tbody>
</table>

As might be expected, those interviewed were aware of the different strands of the government ICT strategy. However, many struggled to describe the overall aims or priorities of the strategy as a whole. While many were strongly supportive of the different delivery strands, they felt that as a whole the strategy “doesn’t hang together”.22 Described as a ‘technical’ strategy, it was viewed as lacking a defined customer or a clear sense of how implementing the different strands will add up to an improved user experience. ICT leaders were also sometimes vague on articulating what success would look like – either for individual strands or for the strategy as a whole. Few people referred to the concrete targets and milestones set out in the SIP.

There were concerns raised inside and outside of government about how the interdependencies between the strands would be managed. There was also a lack of clarity on how different elements of the strategy would be enforced. As one ICT leader commented, in their strand this was an open debate: “Is this a mandatable strategy or a reference document?”23

Delivery board members noted that this was an area that the group was paying increasing attention to. However, as yet, there hasn’t been a clear articulation of how the ICT leaders would determine priorities within the strategy or whether cross-government priorities would apply equally to all departments. This lack of direction does create wider challenges for departments in determining which elements of the strategy they should prioritise. Several departments commented that they were having to choose between securing the best contractual deals now, and leaving the door open to be able to align with the strategy as the strands began delivering. The supplier community were also very aware of this lack of clarity, noting that government risked “getting the irrational application of rational strategies”.24

One further risk that the ICT leaders were very aware of and anxious to avoid was the potential to focus on implementing the ICT strategy or its component objectives in a tick box fashion. As one CIO put it: “Your end result is not ‘green’ or ‘open source’ just for itself, for its own sake.”25 Instead, it was stressed that the focus should be on enabling government to perform more effectively.

Implications

ICT leaders are very aware of the need to turn the strategy from a collection of technical strands into a clear articulation of how it will help departments and citizens. They recognise that there needs to be clearer prioritisation among the 19 strands and that a crucial next step will be to translate the principles set out in the strategy into a prioritised plan of action for their own departments.

21 Institute for Government ICT interview, 2012
22 Institute for Government ICT interview, 2012
23 Institute for Government ICT interview, 2012
24 Institute for Government ICT supplier roundtables, 2012
25 Institute for Government ICT interview, 2012
To do this effectively, it must be clear how the ICT strategy supports the wider business objectives. Currently ICT risks being lumped in with ‘back office overheads’, with the overriding goal being to cut costs. The challenge to ICT leaders is turn this into a conversation about how ICT can best deliver value. It should be clear how the strategy supports departmental business, wider civil service reform plans and better services to citizens.

Leadership and engagement

Summary points

- The new delivery board model is working well to get buy-in and results from the big spending departments.
- There is recognition that the engagement now needs to broaden out to include CIOs of smaller departments.
- However, moving into the delivery phase it will be critical to create and communicate a positive offer to the business and to the wider public sector.

Having a compelling vision for the future of government ICT is only the first step. A great strategy is useless if no one knows about it or is prepared to get involved in delivering it.

Within government, the ICT leadership has gone through a series of rapid changes over the past year, both in terms of turnover and in how they work together. One key change has been the establishment of the CIO delivery board – bringing together the CIOs of big-spending departments and the leaders of the government digital and commercial agendas. Within this model, members of the delivery board have been given personal responsibility for delivery of the strands of the ICT strategy. This has been helpful, both in terms of locking in their commitment to implementing the strategy, and in creating a visible cross-government network of experts on particular areas. The inclusion of digital and commercial leads in this forum also helps to ensure alignment with these interrelated areas.

There have been changes at the top of the ICT leadership, with many of the originators of the strategy moving on. However, most are confident that the new leadership, who were involved in developing the strategy, will build on the foundation of the last year and expect them to focus on delivering results rather than dramatically changing course.

Government ICT has also been a priority of the Minister for the Cabinet Office, Francis Maude – giving the agenda unprecedented ministerial impetus. He has been a visible face of ICT to many inside and outside of government, from demanding departmental data on ICT to being heavily involved in negotiations with ICT suppliers. Though few of his ministerial colleagues appear as passionate about improving government ICT, the CIOs we interviewed overwhelmingly expressed confidence that they would receive the support they needed to implement the changes in ICT.

While considerable progress has been made in getting buy-in and alignment at the top, there is a growing sense that the engagement now needs to be broadened out. With the CIO Council in hiatus for most of the last year, the CIOs of smaller departments felt out of the loop – while their smaller resources meant that they had to be very selective in which strands they were able to engage with. Consequently, recent moves to reinvigorate the CIO Council have been welcomed as a useful forum for gaining greater insights into the strategy as a whole.

Similarly, there has been little engagement with local government or the wider public sector on the overall strategy, though there is broad alignment between the central government strategy and the vision set out at a local level. Suppliers and other ICT leaders pointed out, rightly, that the vast majority of ICT expenditure happens outside SW1 – with agencies, local government and organisations like primary care trusts and police forces still determining much of the citizen and workforce experience of ICT.

Among the supplier community, there was a plea for a more constructive engagement with government. Though some of the larger suppliers felt bruised by the ‘smash and grab’ of initial interactions with the Coalition government, there was a recognition that the moratorium had been about “stopping things which were inappropriate” However, there was a challenge back to government to move from just stopping things and getting back on the front foot. They observed that as ICT strategy was effectively a “long list of things”, almost anything could be justified as being compliant with some element of the strategy. Smaller suppliers tended to articulate a different set of problems. They were generally encouraged that government was trying to use more contractual vehicles which would be open to them – but noted that it was “still extremely difficult to get close to government as an SME.”

Within government, there was a call for a more constructive and collaborative relationship between departments and the centre. Currently, departments primarily ‘feel’ the ICT strategy through the approvals process and the requests for information from strand leaders and the centre. Like suppliers, the CIOs recognise that the approvals process gives the strategy much-needed ‘teeth’. However, there is recognition from both sides that the process would add more value if the centre could provide support and advice at an early stage rather than just being a veto point. Among the smaller departments in particular, there was a degree of frustration with the amount of data submissions that...
they were being asked to make – noting that not only was it a considerable overhead for a small department, but that it wasn’t clear how this information was being used to drive improvement.

Currently, most of the communications on the ICT strategy have been on a strand-by-strand basis, with different degrees of championing by the strand leaders. The government-wide communications have primarily focused on cost savings, reflecting the political imperative to demonstrate progress in this regard. There has been no concerted effort to communicate the strategy as a whole out to the business or involve them in any substantial way in the design and implementation of better ICT services. As one CIO noted on the communications to date: “Most of it is happening under the radar in that I don’t believe that the senior business leadership, certainly in this department, is particularly well aware, or perhaps that interested in what is going on.... we need to find a way of articulating the overall strategy in really simple language that really has a resonance for the business... I still don’t think we’ve been able to do that.”

Implications
The delivery board model has worked very well in creating a manageable leadership forum and has been effective in getting the crucial buy-in from the larger departments. As leaders broaden their engagement they will need to up their game in communicating a clear positive vision of what the ICT strategy can deliver to different groups. Hardest of these may be getting the right links and engagement with their colleagues outside the ICT profession to ensure decision-makers understand how elements of the ICT strategy will support business objectives.

As the process of building engagement and buy-in develops, it will be vital to provide more clarity on the role that strand leaders, departmental CIOs and other actors should be playing.

Enabling rapid progress

Summary points

- The Cabinet Office’s own assessment demonstrates that government has made some significant quick wins over the course of the last year.
- The new approvals process and lead department model have given the strategy much more traction.
- However, perennial problems over resourcing and incentivising cross-departmental change remain.

The ICT leadership have done a lot to unblock barriers that previous ICT strategies have faced. As noted in chapter 3, there has been some success in delivering and demonstrating some ‘quick wins’ in the first year of the strategy. In addition to progress in PSN, Cloud and agile, the new Government Digital Service (GDS) is providing an example of a new way of doing things, and was pointed to by those inside and outside of government as embodying mould-breaking attitudes, using innovative techniques and, more importantly, delivering results on very short timescales. Several interviews mentioned being invigorated by the positive approach of the GDS and their focus on delivering services to meet end-user needs.

There is a real opportunity for government to use early progress to build momentum – but only if people start being able to see real benefits from the changes. Though most ICT leaders were positive that the strategy would yield results in future, there was more of a mixed picture on whether they believed that they were already starting to see improvements.

Figure 7: IFG survey – I believe that the ICT strategy has already improved the use of ICT in my department

Historically, the key barriers to delivering cross-departmental change in ICT practice have been around governance and incentives. Past ICT strategies have struggled to get buy-in across government and to develop effective governance models that build and incentivise common endeavour. CIOs noted that there could be a discrepancy between what got agreed at the old CIO Council meetings and what people actually went away and did. Larger department CIOs also expressed frustration that – despite holding the largest budgets and carrying the largest delivery risks – their voices could easily be outweighed by the multitude of other people round the table.

The delivery board model has been recognised by both big and small departments as pragmatically dealing with both sides of this issue. Larger departments now form part of an inner-leadership circle, but with this recognition of their clout comes additional responsibility to own and drive through parts of the strategy. As we note above, the challenge will now be to ensure that the ICT strategy doesn’t become a ‘large department-only’ affair and that other ICT leads can be effectively engaged.

33 Institute for Government ICT interview, 2012

Another key enabler has been the development of the ‘structural implementation plans’ (SIPs) by the strand leaders. These moved the strategy into the more tangible realm of concrete programmes with actions, deadlines and owners. As the programmes are at different stages of maturity, it is understandable these might be more or less detailed. However, many suggested that having individual, named strand leaders helped to create a personal accountability for driving delivery. And it was clear from interviews that named accountable individuals were often (but not always) seen as driving their respective strands of work. Similarly, the ICT approvals process has also helped to make the strategy much more tangible. By creating a clear check point, there are now clear consequences for non-compliance. And because this is tied to the initial release of any funding, it makes it much easier to catch any potential areas for concern before they get locked into contracts.

Nonetheless, problems may remain around incentives to support ICT strategy implementation. We were told that take-up of different strands has largely been determined by departments own priorities. In many respects, this is a pragmatic approach – any changes should align with the priorities of the business. But it does risk losing some of the momentum that has been built up – particularly as many departments are reluctant to take the chance of being early adopters. The lack of ‘whole government’ prioritisation around the strands may also have led to missed opportunities. For example, departments are all facing the challenge of how to facilitate remote working over the Olympics period. However, because the ICT strategy strands are delivering to their own timescales, a potential intervention point is likely to be missed with each department tackling the problem on an individual basis.

The possibility that departmental incentives continue to trump corporate contributions is further suggested by our survey results (Figure 8). Individuals do not yet feel that corporate contributions are valued or rewarded – a problem that is not limited to the ICT profession according to the Institute’s wider research.

At the moment, strand leaders are often absorbing the resource requirements to deliver their strands within their departments. However, with further departmental budget cuts likely at the next spending review, they will potentially face increasing pressure to justify this diversion. And this situation is likely to be exacerbated as the resources needed are likely to increase as strands move to the implementation stage. Smaller departments have been forced to be very selective in their engagement with the strategy so far due to resource limitations, and are keen to have the appropriate resource to support the delivery stage. The National Audit Office picked up on this issue in their six month review of progress, noting a gap of 78 FTE staff in plans to support implementation. Government are conscious of this issue and are currently developing a central pool of resource that departments can draw on. The ICT leaders also need to consider how these areas can be supported on an ongoing basis. While a levy funding model is being trialled with PSN, other areas like agile or green ICT are likely to need something different.

Implications
There have been some commendable early wins over the last year of the strategy, which ICT leaders should build on as they flesh out detailed plans for how departments will implement it. Key to this will be incentivising real progress. Government should be cautious about using metrics without reflecting on whether they rigorously represent progress. ‘Savings’ should be open to rigorous scrutiny as to whether they represent real reductions in cost for the same value, or whether they are just deferred expenditure. CIOs should question whether they are genuinely improving the ways that they are working in areas such as agile, or whether they are just attaching a label to projects to get a tick in the box.

Government needs to consider how it can develop a more enabling centre. So far, it has acted to provide an effective check on the system. But it is encouraging that there are signs the approvals process is beginning to provide expertise and support to departments in developing cost-effective alternatives, rather than simply being a veto point. ICT leaders should consider whether there are wider things that the Centre could do to be supportive, for example, providing benchmarking or offering best practice input into departments’ plans.

5. What are the wider issues?

The above analysis highlights two wider issues for government ICT.

First, there are risks that the strategy could be delivered in a way that still doesn’t transform ICT performance. This is in part due to the focus on driving particular activities and approaches rather than focusing on overall outcomes, such as user satisfaction and broad cost-effectiveness measures. But there is also a risk that the spending controls process and strategy workstreams might focus on initiating and reshaping new government projects, while devoting less attention to core ‘business as usual’ activities. The current focus on short-term efficiencies, though arguably necessary, could also, without close attention, come at the expense of longer-term transformation.

Such risks are exacerbated by the current lack of data that gives a good overall impression of departmental and government ICT performance, making it difficult for the government CIO or departmental leaders to track progress, benchmark performance or identify areas of good or promising practice.

Second, there are risks that "whole government" outcomes will continue to be subordinated to departmental objectives. In System Error, the Institute recommended that the government CIO be independent of departmental interests. Government, however, has successively appointed as CIO individuals who have retained their roles as CIOs in major departments and are conducting their role nominally in two days per week. These CIOs have therefore depended less on executive decision-making and more on collective leadership through the CIO delivery board.

As shown above, this approach has proved to have real merits: helping build buy-in from the major departments; ensuring the government CIO’s credibility in the face of departmental CIO colleagues; and building the sense that the government CIO shares interests with his peers.

However, only a small minority of individuals felt that delivery board members were able to develop a ‘whole government’ view and promote its implementation. Indeed, the vast majority of those we spoke to suggested that departmental interests would almost always ultimately trump cross-government interests in the current government culture and context. There was extreme scepticism about whether the government CIO could (or should) play a role in redistributing talent across departments, and discomfort at the idea that decisions taken on a government-wide basis would trump departmental priorities. Ultimately, CIOs felt that they would be rewarded for delivery of departmental priorities – not pan-government work – perhaps explaining why the ICT strategy successes to date are primarily in the ‘win-win’ territory. Where departments are able to easily fit into new platforms being created, they are doing so – to a degree unmatched previously but perhaps on timelines better matched to departmental than pan-government needs.

These two wider issues create two marked oddities: first, that the strategy could theoretically be delivered to the detriment of current ICT performance; and, second,
that while the Minister for the Cabinet Office and government CIO are viewed as being responsible for delivering the ICT strategy (for example by the Public Accounts Committee) they currently lack the full authority to direct change.

Some may feel these two oddities are inevitable or acceptable – believing that the benefits and simplicity of departmental accountability combined with an enabling centre are as good as government can hope for. But it seems likely that more can be done: first to strengthen the collective and individual accountability of government CIOs and second by examining whether current civil service accountability models are still fit for purpose.

Strengthening collective responsibility and CIO accountability

Those we spoke to, including CIO Taskforce members, felt that there might be a number of ways to build on the current model of delivery board accountability to improve further the collective performance of the ICT profession. The duration of this research project has not permitted thorough testing of the ideas generated through our research. However, the Government should seriously consider whether to:

1. Ensure that the government CIO is consulted in CIO appraisals, at which he should present his view of departmental ICT performance and intelligence on CIOs’ pan-government contribution. The CIO should also provide a sounding board for questions from departmental leaders as required.

2. Ensure that the government CIO is always consulted regarding departmental CIO appointments and provides input into the setting of CIO’s corporate objectives, where appropriate.

3. Collectively agree the key performance metrics that should be used to support CIO performance discussions (and publish them). It is important to recognise differences between departments – in terms of what they do, organisational maturity and history. However, working together, CIOs should be able to develop a common way of judging performance, even if aspects of performance measurement are tailored to individual departments.

4. Explore the potential for more widespread use of peer review across the CIO community. Several CIOs currently volunteer for review by colleagues but it may be useful to regularise this.

5. Build closer relationships with the civil service leadership, in order to advocate a new relationship between departmental leaders and ICT leaders. The civil service leadership should be more demanding of ICT and ICT professionals should be more demanding of the civil service leadership, promoting the changes in overall working practices needed to deliver ICT solutions effectively. There are a range of ‘soft’ measures that can be taken to build such relationships, for example events bringing these groups together, wider use of senior leaders in current ICT ‘user forums’, and increased focus on education to show how ICT can be used to improve departmental performance in top management leadership programmes.

A whole of government approach

This research has confirmed our view that a strong independent CIO will be a vital enabler of improving ICT performance across government. However, from our interviews it became clear that ultimately, a strong independent government CIO model cannot be implemented without fundamentally addressing the wider question of whole civil service leadership. Institute for Government research has suggested that the administrative centre of government is weak by international standards and clearly shows that the issues we see in ICT are replicated in other professions, for example the finance profession.

The priority for government now is to develop viable pan-government leadership models and ICT leadership models. The Institute will continue to investigate alternative models both in other governments and in multi-organisation or multi-country businesses in order to explore the strengths and weaknesses of various systems.

Currently, the CIO can and often does become involved in CIO recruitment but this has not always been the case.

6. Conclusions

It is perhaps inevitable that a review one year into a major programme for change should conclude that it is too early to judge success. But our reflection on completing this research is that it has been a highly worthwhile exercise.

First, it is clear that there is enough of a basis for future improvement that a few decisive actions now could see the strategy being implemented far more effectively. Clarifying and measuring success, prioritising activities, and engaging departmental leaders will have a major impact on the prospects of success.

Second, it is evident that the process of implementing the ICT strategy is revealing wider challenges for implementing cross-government change: namely the fact that government as a whole is not yet set up to support decision-making that prioritises value for money for government as a whole, rather than for individual departments. This research has confirmed our view that top level government and civil service accountability structures need to be reviewed.

Third, there is much to learn from this example of cross-departmental change. The creation of a governance model that binds major departments into collective ownership of changes, but also gives ownership of projects to named individuals, is promising. The spending controls process is clearly an effective influencer of behaviour — if one that could be more productive in time. And, as in our wider research, the role of a championing minister is critical.\(^\text{40}\)

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