

Government ICT Strategy - Strategic Implementation Plan

moving from the 'what' to the 'how'

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Foreword

This Government is committed to reducing waste and delivering modern public services at lower cost. We have already saved hundreds of millions of pounds in 2010/11 by stopping or reducing spend on 'low value' ICT projects. These quick wins demonstrate what can be achieved by taking a whole of government approach and challenging the way we operate and provide services. The Government ICT Strategy, published in March 2011, described our longer term programmes of reform to improve Government ICT and deliver greater savings. This Strategic Implementation Plan provides a reference for central government and is designed to be read alongside the Government ICT Strategy [<http://www.cabinetoffice.gov.uk/content/government-ict-strategy>].

Our plans are focused on standardising government ICT. In the past, government departments worked to their own requirements and often procured expensive bespoke ICT systems and solutions to meet them. As a result, departments have been tied in to inflexible and costly ICT solutions which together have created a fragmented ICT estate that impedes the efficiencies created by sharing and re-use. It also prevents government from offering joined-up, modern, digitally-based public services that are suited to local requirements. Affordability in the current 'age of austerity' requires a different approach. The approach set out in this plan ensures that departments will now work in a collegiate way, underpinned by rigorous controls and mandates. Strategy implementation is led by the Chief Information Officer (CIO) Delivery Board, chaired by the Government CIO.

This is not just a plan to reduce the cost and inefficiency of departmental ICT. Effective implementation of the Strategy has already begun in programmes that will radically reform front line public services. For example, the Universal Credit programme is one of the first 'Digital by Default' services, using an Agile approach to reduce delivery risk and improve business outcomes.

Success or failure of government ICT depends on greater business preparedness, competency in change management and effective process re-engineering. That is why, although we focus on the common infrastructure as a way of significantly reducing costs, the ICT Strategy (and this plan) recognises the need for a change in our approach to ICT implementation. In particular, implementation will be driven through the centre, as a series of smaller, local ICT elements, rather than 'big bang' programmes that often fail to deliver the value required. Increasing internal capability, developing stronger programme and project management skills and using common, mandated standards to underpin technology solutions will reduce the risk of failure and significantly reduce our reliance on costly external support.

Government is committed to become a single and effective ICT customer, leveraging buying power whilst remaining flexible on how it procures. To successfully implement the Strategy government must work more effectively with suppliers and the ICT industry. We will ensure collective engagement with industry so that we work in partnership to adapt to the new approaches and technologies set out in the Government ICT Strategy. In doing so we can drive down our costs by creating a

more open and competitive marketplace from which we procure services and solutions.

Government recognises that effective exploitation of technology is essential to our efficiency and reform agenda. This is a comprehensive implementation plan to fundamentally change how government incorporates ICT into its everyday business. It will ensure the early factoring of technology considerations into the design of policy, increase digital inclusion, reduce the cost of our operations, and ensure information is shared and transparent where possible and always handled appropriately. Delivering strategy commitments will support our plans for economic growth and enable workforce transformation so that we have the tools to deliver modern, effective public services.

Introduction

Strategy Summary

1. The government published the ICT Strategy in March 2011. The Strategy described how the government ICT landscape would change over the current spending review period and included 30 actions which form the foundation activities for achieving the Strategy's core objectives of:
 - reducing waste and project failure, and stimulating economic growth;
 - creating a common ICT infrastructure;
 - using ICT to enable and deliver change; and
 - strengthening governance.

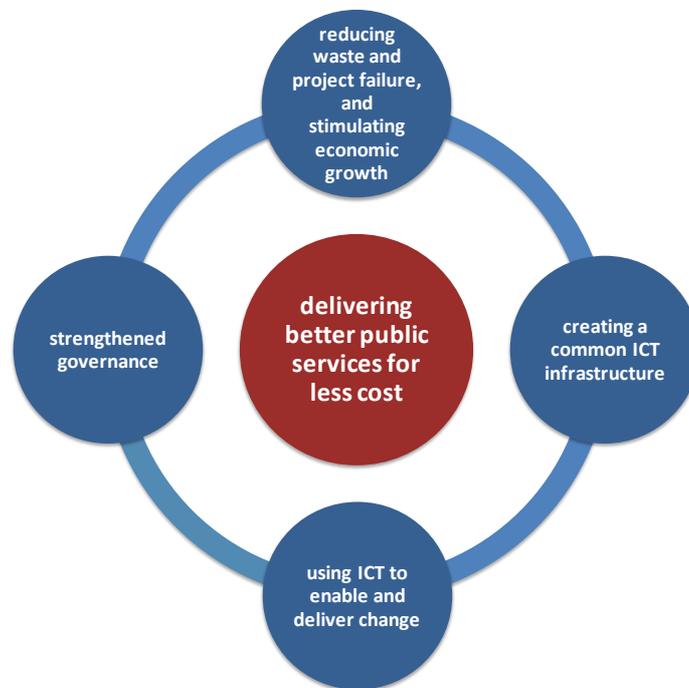


Figure 1: The Government ICT Strategy

Purpose of the Strategic Implementation Plan

2. The ICT Strategy committed to the publication of a Strategic Implementation Plan (SIP) to translate the vision into real outcomes. The SIP provides an overview of how the Strategy will be implemented and a summary of the individual plans for each delivery area.

Why do we need the Strategy?

3. All central government departments and their agencies/arms length bodies have agreed to implement the ICT Strategy. Along with other efficiency and reform agenda activities, it will deliver savings that will help government departments live within their budget settlements. Successful implementation of the Strategy in central government is projected to deliver over £460m savings in-year in 2014/15. Though implementation is not mandatory outside central government, Government will work with the wider public sector to identify and exploit further opportunities for savings through greater innovation, and sharing and re-use of solutions and services.
4. For the citizen, the creation of a common ICT infrastructure will provide the platform from which government will deliver better public services digitally by default. The Government Digital Service (GDS) has been created to meet the challenge of delivering the online services that citizens require in a digitally connected world.
5. Delivery of the strategy will support our commitment to Open Public Services. Selecting Application Programme Interface (API)¹ standards will enable a range of new service providers to exploit government data to provide new innovative tools and services to citizens. Government will also exploit digital channels to build better bridges between government and citizens through the use of online consultations and greater use of social media.

Progress

6. Government has already made good progress against the ICT Strategy actions:
 - The Assets and Services Knowledgebase (previously referred to as the asset register) is in development and due for release in October. The supplier is an SME (Small and Medium-sized Enterprise), identified through the Contracts Finder service launched earlier this year (Action 1);
 - The Government Procurement Service has been restructured to be leaner and more efficient, with a commitment to cost reductions in excess of 25% on spend on all common goods and services, including ICT, by the end March of 2013. It is currently drawing up Memoranda of Understanding with government departments (Action 2);
 - An Open Source Implementation Group, System Integrator Forum and an online Government Open Solutions Forum (referred to in the Strategy as the Open Source Advisory Panel) have been established and have begun to break down the technical and cultural barriers that impede the usage of open source solutions across government (Action 4);
 - Guidance on the presumption against government ICT projects valued at over £100m has been drafted and is due to be published imminently (Action 5);

¹ An **application programming interface (API)** is a particular set of rules ('code') and specifications that software programs can follow to communicate with each other. It serves as an interface between different software programs and facilitates their interaction.

- Baseline standards for the Public Services Network (PSN) have been delivered and the first PSN services are operational in Kent and Hampshire County Councils (Action 17);
- An informal consultation to crowd source feedback on Open Standards has taken place (Action 22); and
- A Director of ICT Futures, Liam Maxwell, has been appointed and has begun work to horizon scan and improve capability to identify risks and exploit new technologies (Action 28).

See Annex 1 for progress against all ICT Strategy actions.

Part 1 – Delivering the Strategy

7. This part of the SIP sets out the approach to implementation, the scope, priorities, high level timetable, the key benefits and risks and the people and bodies responsible for delivery. It also sets out the measures being put in place to ensure progress on delivery is transparent.
8. The scope and ambition of the ICT Strategy require an innovative delivery approach, strengthened governance and departments working together to unprecedented levels to deliver the key elements of the Strategy and achieve its objectives:

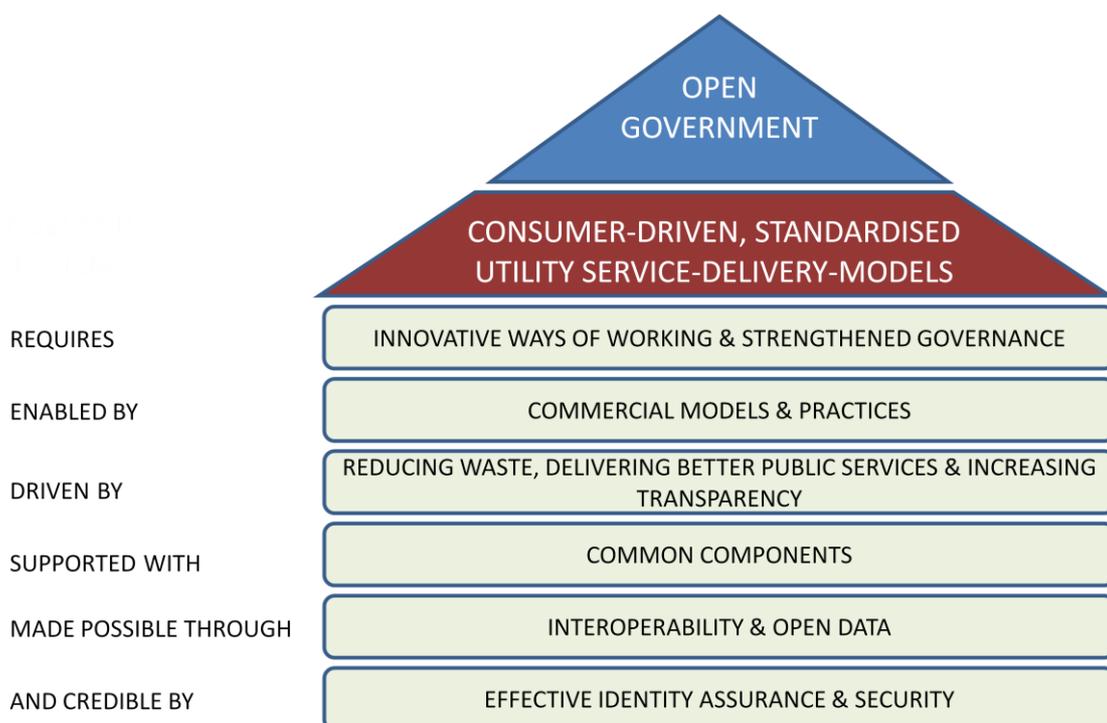


Figure 2: The delivery approach

Delivery approach and principles

9. The commitments set out in the ICT Strategy are challenging. The need to reduce operating costs whilst delivering better public services requires that government organisations work together much more effectively. The CIO Delivery Board, chaired by the Government CIO, Joe Harley CBE, brings together and leverages the resources and expertise of the Cabinet Office and six large delivery departments to ensure implementation of the strategy. The design of delivery

plans has been guided by the principle that outcomes are pan-Government, ambitious and set real pace.

10. Delivery of the Strategy is broadly divided into short term and longer term goals. Short terms goals are focused on improving the efficiency and quality of the current ICT that supports operations. The central concept to the delivery of the Strategy's longer term objectives is standardisation. A suite of mandatory open standards will underpin the standardisation of ICT solutions. This will move government away from procuring expensive bespoke systems to greater re-use and sharing of less expensive off-the-shelf solutions. Standardisation will also enable a shift to a commodity approach to procuring ICT services, through which government will have greater flexibility to consume services based on demand. Both goals are underpinned by the need to ensure that government maintains and builds the trust of citizens to assure them that the integrity and security of data will be appropriately safeguarded.
11. To implement new approaches to ICT, such as agile development, open source, or green ICT, government needs an ICT profession that is committed collectively and personally to keeping up to date with emerging industry practice and has access to training and professional development. While the ICT Capability Strategy will lay the foundation for the ICT profession, there is an immediate requirement for specific skills to deliver the ICT Strategy. Government CIOs have committed to ensuring their teams acquire the learning and skills required to implement the ICT Strategy. The IT Profession Board is chaired by Joe Harley CBE, Government CIO and Head of the IT Profession.

Priorities

12. As part of the standardisation process, the government's priority areas of activity are the creation of an environment for a common and secure ICT infrastructure, underpinned by a suite of mandated standards. These activities will deliver the greatest savings benefits and provide the critical foundations to enable the re-use and sharing of solutions and services. It is also critical that procurement vehicles and contracting models are available to support this new model of ICT delivery and maximise the speed of implementation, and that the contracting landscape is clearly understood in order to fully ensure compliance with the ICT Strategy across government.

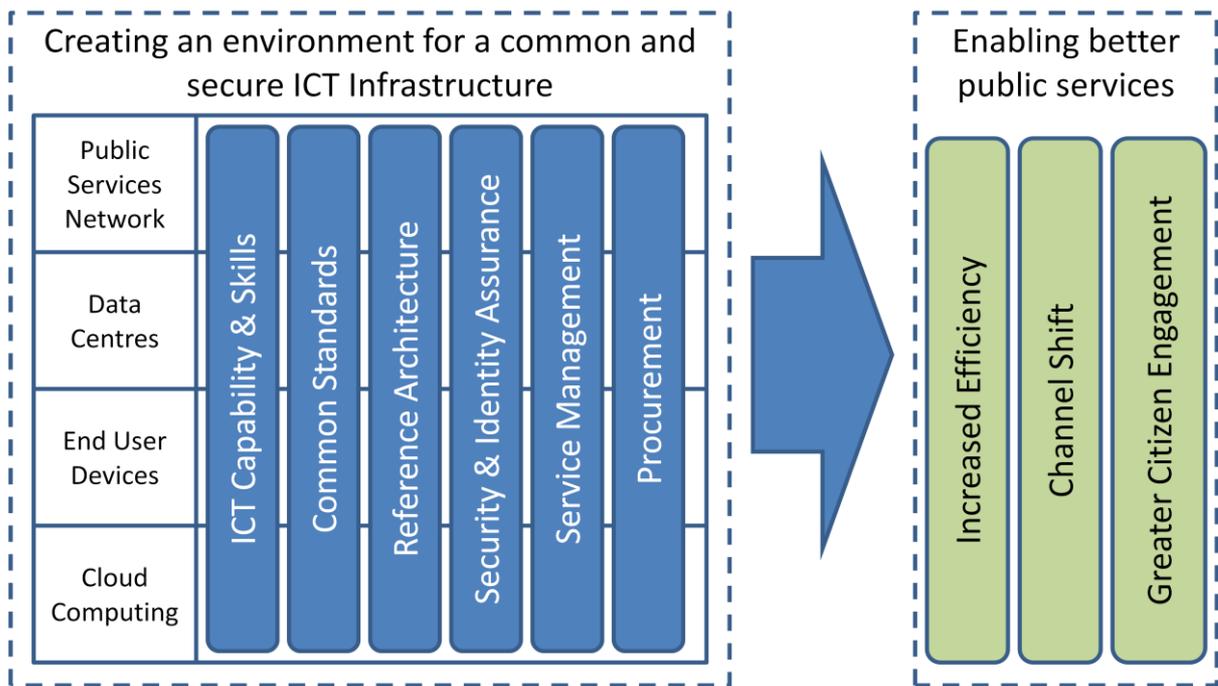


Figure 3: The key components of the common ICT infrastructure will enable more cost-effective delivery of better public services

13. The move towards a commodity approach to procuring ICT services requires a new approach to the challenges around commercial, security and service management. The Government Procurement Service, Government Digital Service and the Office of Cyber Security and Information Assurance will work closely with CIO Delivery Board Senior Responsible Owners (SROs) to provide expert advice on ICT solutions.
14. A key facet of the delivery of the government's ICT Strategy is the link between technology and commercial approaches to delivery. The Cabinet Office is leading work to deliver a market and supplier strategy to ensure that the ICT Strategy is fully supported commercially, and that the ICT market is aligned to government priorities. This work will ensure that the government is able to fully exploit and influence technology through appropriate commercial vehicles. Government will also address the contracting pipeline and future ICT and commercial offerings, with specific reference to end user devices, the Public Services Network (PSN) and the consolidation of data centres. This work has already been commissioned and a progress update will be provided by the Government Procurement Service by the end of 2011.

Scope

15. The scope of the ICT Strategy is to deliver initially to central government departments and their agencies/arms length bodies. The common infrastructure, standards and accompanying solutions and expertise will then be opened up to the wider public sector.

Governance and delivery model

16. Managing the many linked dependencies and risks between individual delivery areas of the Strategy and realising the benefits of change poses a number of challenges. Implementation will require strong governance and leadership, mandated actions where appropriate, enforcement via spend controls, and monitoring and reporting. This will be aligned with other central measurement and reporting activity and the transparency agenda. Government will need to work effectively together as well as with suppliers and other delivery partners to overcome barriers to change. To help ensure effective monitoring and measurement of progress, government is engaging with the National Audit Office.
17. The Strategy also dovetails into other efficiency and reform agenda work, such as rationalising the government property estate, a stronger approach to shared services, a move to common approaches such as Next Generation HR, improving procurement to create a fairer and more competitive marketplace, increasing the capability of the public sector workforce, and the development of the Government Digital Service.
18. The role of the workplace is also changing. Developments in technology, combined with an increasingly cross-generational and distributed workforce, are challenging traditional concepts of the workplace and where and how the Civil Service works. Government is committed to joining up ICT, property and workforce planning activities to exploit ICT to achieve broader aims of workspace consolidation.
19. The complexity of internal and external relationships and the scope of the Strategy are reflected in the governance structures and strong delivery model that have been established. Implementation of the Strategy will be managed as a portfolio of 19 individual delivery areas. SROs are in place for each delivery area and will be responsible for oversight and driving delivery of strategy commitments. The CIO Delivery Board will work in partnership with departments across central government to implement and assure strategy delivery. The CIO Delivery Board will ensure the delivery of the whole strategy is managed effectively and to do so will actively manage risks and dependencies between delivery areas. As Chair of the CIO Delivery Board, the Government CIO, Joe Harley CBE, is accountable for the overall delivery of the ICT Strategy. Key components of the governance structure are:
 - named and accountable Senior Responsible Owners (SROs) supported by governance structures for each individual delivery area; and
 - the Cabinet Office working with the CIO Delivery Board and departments to track the implementation of the strategy, focusing on milestones, benefits and key dependencies. The escalation route for issues will be through the Government CIO. This portfolio management approach will also help ensure that lessons are learnt from implementation challenges, and that working solutions are shared across government. Cabinet Office will also work with departments to ensure that new solutions are aligned to the ICT strategy.

20. The Heads of both the Government Digital Service and Government Procurement Service are represented on the CIO Delivery Board in recognition of the critical dependencies on the delivery of the strategy to wider digital and procurement deliverables. The Director of ICT Futures is also a member of the CIO Delivery Board.
21. An Open Standards Board will be established to take responsibility for the management of the various standards activities. The Reference Architecture will be the mechanism for linking the different standards domains.
22. The Public Expenditure (Efficiency and Reform) Cabinet sub-committee (PEX(ER)), jointly chaired by the Minister for the Cabinet Office and the Chief Secretary to HM Treasury, provides ministerial oversight. Government will report progress on implementation of the ICT Strategy to PEX(ER) and, if required, the committee has the power to intervene to ensure there is sufficient progress and that outcomes are fit for purpose.

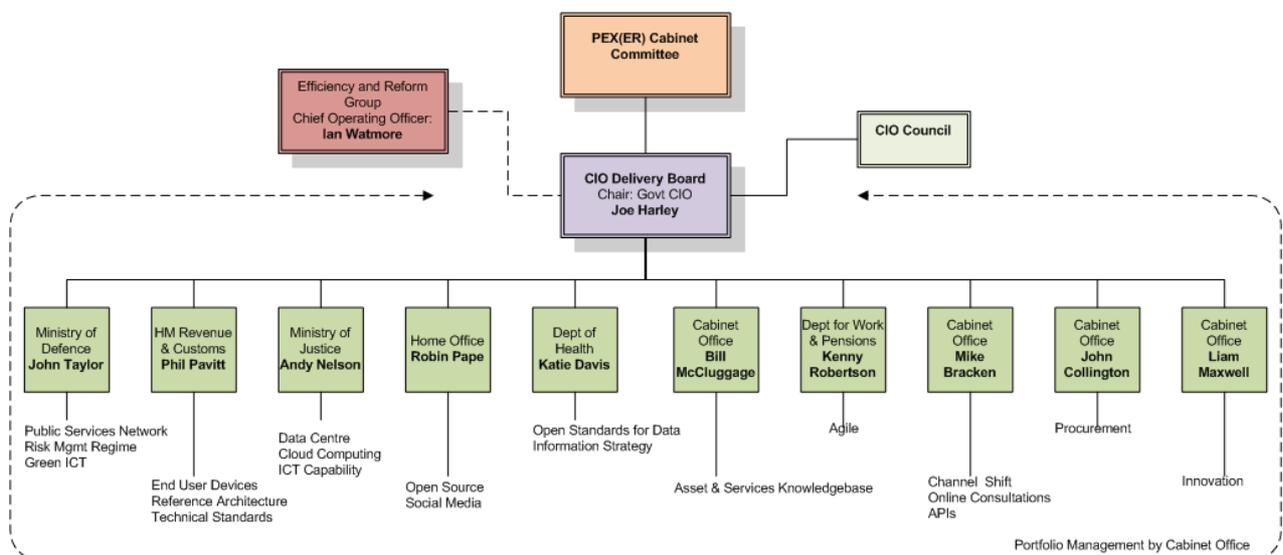


Figure 4: High-level governance

23. The development of this SIP recognises the need to consider the impact on staff and citizens. Owners of specific actions are therefore required to consider security, health and safety and individual accessibility impacts, in particular those with protected characteristics under the Equality Act 2010.

Timetable for delivery

Key Milestone	Date
100% of central departments have access to the ICT Asset and Services Knowledgebase and can input, discover and output data	September 2011

Cloud Computing Strategy published	October 2011
End User Device Strategy published and delivery programme commenced	October 2011
Green ICT Strategy published	October 2011
ICT Capability Strategy published	October 2011
First release of a draft suite of mandatory Open Technical Standards published	December 2011
First draft of reference architecture published	December 2011
Publication of cross-government information strategy principles	December 2011
High level information risk management governance process designed agreed	December 2011
Roll-out of 'lean' sourcing process	January 2012
Data Centre standards published	February 2012
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	March 2012
A set of open standards for data adoption established and progressed by government departments, driven by the Open Standards Board	June 2012
50 accredited products on the Government Application Store	December 2012
Full implementation of End User Device Strategy commences	January 2013
Agile techniques used in 50% of major ICT-enabled programmes	April 2013
80%, by contract value, of government telecommunications will be PSN compliant	March 2014
50% of central government departments' new ICT spending will be transitioned to public cloud computing services	December 2015
Cost of data centres reduced by 35% from 2011 baseline	October 2016

Table 1: Key Milestones for Delivery of the Common ICT Infrastructure

24. As part of their individual delivery plans, SROs will map critical intervention points at the end of current service contracts, or planned periods for technical refresh, for all departments. From this mapping, the CIO Delivery Board will prepare a phased implementation or transition to new ICT solutions in line with the Strategy. Departments on the CIO Delivery Board will be early adopters wherever possible.

Benefits

25. The ICT Strategy will act as a key enabler for departments to save to spend. It is difficult to anticipate total savings as technology is constantly changing, impacting

on both the work programme and associated savings. However government anticipates over £460m of in-year savings for central government in 2014/15 – the majority of which will be through the creation of a common ICT infrastructure. The breakdown of provisional savings for central government is:

Savings by Year (£millions)				
	2011-12	2012-13	2013-14	2014-15
PSN	30	100	130	130
Data Centres	-	20	60	80
End User Device	-	10	20	30
Cloud & App Store	-	20	40	120
ICT Moratorium	130	290	130	100
Total	160	440	380	460

Table 2: Central government common ICT infrastructure in-year savings 2011-15

26. There is currently no definitive or audited record of ICT spend in central government for the period 2009/10, however the best estimates suggest this to be around £6.5bn in central government (and £16-17bn in the wider public sector including local government, Devolved Administrations and the NHS). £460m is the minimum amount of savings that central government is working to deliver, which equates to an approximate 7% in-year saving in 2014/15, against the assumed 2009/10 baseline of £6.5bn. The re-use and sharing of solutions and reforms to procurement approaches and commercial relationships are expected to generate further savings.
27. These savings will help departments operate within their existing spending review settlements. Departments may redirect savings towards other ICT initiatives to deliver improved services such as channel shift, or indeed other reform priorities. Operational spend will be challenged and controlled through the ICT spending control process. Projects that have not demonstrated use of the Asset and Services Knowledgebase before proposing new spend will be declined. Departments, in order to obtain spend approval, will need to move to adopt mandatory common ICT infrastructure solutions and standards, and spending applications will be assessed for their synergy with the Strategy.

Risk

28. Risks to successful delivery of the Strategy and realisation of its benefits will be managed through the governance structures outlined earlier, and through those established for individual delivery areas. The current top three identified risks are summarised in the table below, together with mitigating actions.

Risk	Mitigation
Supplier market is slow to adapt to the new ICT landscape.	Strong engagement with suppliers and clarity of purpose around medium and long term market requirements.
Dependencies between SRO responsibilities across the strategy could delay progress if the dependencies are not identified and dealt with in a timely manner.	Portfolio management approach, understanding and managing dependencies within the programme, prioritising critical deliverables, strong communications and project links between key strategy areas e.g. PSN, end user devices and data centre consolidation.
Existing contract arrangements prevent / delay implementation of key components.	Strong link to commercial and procurement strategies to enable medium and long term alignment of ICT Strategy and commercial approach.

Table 3: ICT Strategy top 3 risks

Transparency

29. Implementation of the ICT Strategy will be measurable and transparent, enabling citizens, businesses, the voluntary and community sectors, and departments to track the government's success in achieving its objectives and in securing the expected benefits. To drive performance and increase accountability, government will publish six-monthly performance dashboard reports (in machine-readable format), in line with publication of departmental quarterly data summaries (QDS). The current set of metrics (see individual Delivery Areas in Part 2 below) will be kept under review by the CIO Delivery Board. Metrics will then be developed and extended as delivery areas mature and published in the annual progress update for the ICT Strategy beginning in March 2012.

Part 2 – Delivery Areas

OBJECTIVE 1: REDUCING WASTE AND PROJECT FAILURE, AND STIMULATING ECONOMIC GROWTH

30. Government has too often procured large, risky ICT projects that, coupled with lengthy and costly procurement regimes, limited the number of suppliers to those large enough to compete. In addition, departments rarely share and re-use ICT solutions which could meet the majority of their requirements but instead opt for more expensive and bespoke alternatives in an effort to obtain an “ideal” solution.
31. Building on the £300 million already saved (from May 2010 – March 2011) by applying greater scrutiny to ICT expenditure, government will continue to reduce waste by making it easier for departments to share and re-use solutions through the creation of an ICT Asset and Services Knowledgebase, applications store, using more open source, and improving the ICT capability of the workforce. At the same time, it will reduce the risk of project failure and stimulate economic growth by adopting agile programme and project management methods and reforming procurement approaches to make it easier for SMEs to bid for contracts.
32. For all relevant software procurements across government, open source solutions will be considered fairly against proprietary solutions based on value for money (VFM) and total cost of ownership. Success will be measured initially by a survey of each department’s compliance with the existing open source policy. Longer term, open source usage will be measured annually by the use of a departmental maturity model. The ICT Asset and Services Knowledgebase will be used to record the reuse of existing open source solutions, and the deployment of new open source solutions.
33. The methods and policies set out under objective one are common industry practice and will improve our capability to exploit ICT. Cashable savings for these activities are difficult to identify at this stage as the government ICT estate is currently being mapped, and many savings are dependent on the uptake of individual work strands.
34. The governance structure and the individual delivery plans central to the achievement of reducing waste and project failure, and stimulating economic growth are outlined below.

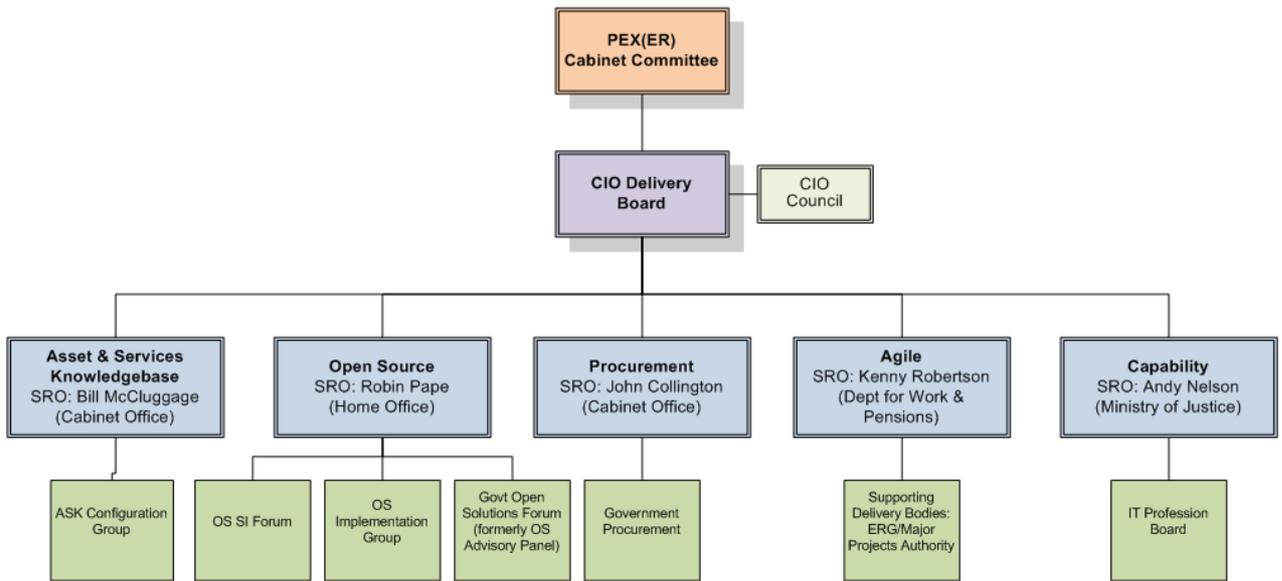


Figure 5: Objective 1 delivery areas – governance

1. Asset and Services Knowledgebase

The Challenge

Departments are often unaware of ICT assets and services that could be reused beyond their original boundaries. Access to up-to-date, accurate and comparable information is essential for departments and Cabinet Office to make strategic decisions and meet their objectives to reform the ICT estate and reduce cost. There is currently no central focal point for departments to share and access this information.

Objectives

To increase sharing and re-use of ICT services and solutions by government organisations regularly populating and making use of a comprehensive ICT Asset and Services Knowledgebase.

To reduce the price government pays for assets by leveraging its size and buying power, paying the same low price for the same ICT assets and services.

Key Metrics

- Total number of reusable assets contributed by organisations
- Total number of assets contributed by organisations
- Total number of instances of re-use
- Total number of shared services and solutions
- Number of licences defined as 'held' in the Asset and Services Knowledgebase
- Number of licences defined as 'used' in the Asset and Services Knowledgebase

Delivery

Cross-government agreement has been achieved of how ICT assets are defined and categorised, and what data is recorded about each. The definition of assets and services is described in an underlying model, which covers capacity, capability and cost for ICT sites, systems, services, software and hardware.

A 'prototype' tool has been created to inform requirements.

While use of the register cannot be mandated outside central government, its use will be encouraged across the public sector. Within central government, projects that have not demonstrated use of the Asset and Services Knowledgebase before proposing new spend will be declined.

Key Milestones	Completion Date
100% of central departments have access to the knowledgebase and can input, discover and output data	Delivered on September 2011
Tool is embedded into the Cabinet Office process for assessing major ICT projects and departmental processes	December 2011

100% of central government organisations and their Arms Length Bodies (ALBs) can input, discover and output data, and regularly contribute data	March 2012
Report on exploitation of the Asset and Services Knowledgebase across central government and the wider public sector	June 2012
10% of public sector regularly contributing data	March 2013
Increase the percentage of organisations who contribute re-usable assets compared to those who contribute data by 33%	2014/15

Accountability

The Senior Responsible Owner is Bill McCluggage, HMG Deputy Government CIO.

Managing top 3 risks

Risk	Mitigating Action
Poor quality of data.	<ul style="list-style-type: none"> • Departments submit and amend their own data to reduce error • Tool is built on an underlying data model to remove ambiguity • Data lifecycle and provenance will be managed through the tool • Solution will enable links to be made with existing data sources
Lack of buy-in from departments.	<ul style="list-style-type: none"> • Departments involved in workshops throughout • Senior stakeholders engaged, including CIO and CTO Councils • Cabinet Office provides engagement lead for departments • MCO has requested data via Public Expenditure Committee on Efficiency and Reform, PEX(ER)
Aggregating data provides a source of information for (cyber) terrorism.	<ul style="list-style-type: none"> • Data will be hosted in a secure environment • The system will be accredited to the required level • Access to the system will be controlled

2. Open Source

The Challenge

Open source software (OSS) presents significant opportunities for the design and delivery of interoperable solutions. Despite this, government departments have traditionally opted for proprietary software that may not necessarily present best value-for-money.

Objectives

To create a level playing field for open source and proprietary software, allowing departments to evaluate open source options and select the best value-for-money option.

Key Metrics

- Total number of ICT software procurements (tenders and requests)
- Total number of ICT software procurements with no branded products and no bias
- Total number of open source solutions deployed

Delivery

A governance structure has been established, which includes three key bodies to lead and coordinate activities to remove the barriers to the usage of open source solutions:

- a cross-government Open Source Implementation Group to ensure departments are evaluating open source solutions;
- a System Integrator Forum to ensure their compliance with open source policy and identify barriers to its uptake; and
- an online Government Open Solutions Forum (referred to in the ICT strategy as Open Source Advisory Panel) to provide technical, legal and business process advice on open source solutions.

Key Milestones	Completion Date
Produce procurement toolkit to assist departments in the evaluation and adoption of open source solutions	October 2011
Produce initial Total Cost Ownership model and baseline	October 2011
Capture lessons learned from non compliance with open source strategy	March 2012
100% of departments will have access to the toolkit	March 2012
Introduction of maturity model to encourage uptake and embedding, followed by annual review of departments' maturity on open source	March 2012
100% of all department software procurement activity includes an open source option analysis	March 2013

Accountability

The Senior Responsible Owner for Open Source is Robin Pape, CIO for the Home Office.

Managing top 3 risks

Risk	Mitigating Action
Failing to get the departments to change current buying and development practice – busting the OSS myths.	Guidance, measurement, assurance and compliance.
Failing to change System Integrator (SI) behaviour.	Identifying and addressing barriers via the SI Forum. Explaining the benefits and possible win-win scenario.
Absence of collective App store/Asset and Services Knowledgebase limits re-use.	Identify key dependences and proactively manage across ICT Strategy.

3. Procurement

The Challenge

Government has the potential to leverage its huge buying power in the ICT marketplace. However, government procurement of ICT has in some cases failed to deliver economies of scale and failed to deliver value for money to the taxpayer.

Objectives

To reform government procurement through the centralisation of common goods and services spend by funding improvements in technology, processes and government wide procurement resources to better manage total procurement spend and government wide standards, such as those for green ICT.

Government is therefore committed to become a single and effective ICT customer, leveraging buying power whilst remaining flexible on how it procures. As part of this process government will create a more open, transparent and competitive ICT marketplace embracing open standards and open source that will remove barriers to SME participation in public sector procurement to create a fairer and more competitive marketplace.

Government Procurement has a number of strategic goals, including to:

- create an integrated Government Procurement (GP) to deliver and manage the Operating Model for Centralised Procurement for all common goods and services including ICT, delivering cost reductions in excess of 25% from the 2009/10 baseline of £13bn;
- transform Government Procurement Service (GPS) to be leaner, more efficient and to become the engine room of government procurement, delivering savings through sourcing, category, data and customer management across all categories of common spend including ICT;
- formalise agreements between GPS and all departments to deliver centralised procurement and to improve capability, including within the ICT spend category;
- deliver policy and capability improvements covering EU procurement regulations; transparency in procurement and contracting; removing barriers to SMEs; and
- mandate open standards and a level playing field for open source; streamline the procurement process using 'lean' plus supporting programme to develop the capability of civil servants who lead government procurements.

Key Metrics

- Total spend under management on ICT common goods and services
- Savings on ICT common goods and services
- Number of ICT contracts with a lifetime value greater than £100m
- Time to deliver ICT procurements
- Number of active ICT procurements

Delivery

Cost reductions in excess of 25% on spend on all common goods and services including ICT from the baseline of £13bn by end March 2013. The key milestones of

Government Procurement that are relevant to the delivery of the ICT Strategy are:

Key Milestones	Completion Date
SME Progress Report published	July 2011, then quarterly
Memoranda of Understanding (MOUs) with departments agreed	August 2011
Signed Customer Service Agreements with transition plans for moving spend under management	September 2011
Implement a transparent mechanism for using any surplus to invest in procurement capability	September 2011
ICT procurement strategy aligned to ICT strategy	December 2011
Reduce total cost per full-time equivalent (FTE) from £97k to £70k	January 2012
Reconstitute GPS Board under Chief Procurement Office (CPO) with customer non-executive directors (NEDs)	April 2012

Accountability

The Senior Responsible Owner for improving government procurement is the Chief Procurement Officer (CPO), John Collington. Specific terms of reference for the optimal supply and associated commercial strategies supporting the ICT Strategy have been agreed between the CPO and Joe Harley as Government CIO.

The procurement elements of the individual delivery areas of the ICT Strategy will be delivered by the ICT Category team in the GPS.

Managing top 3 risks

Risk	Mitigating Action
Failure to deliver the anticipated savings due to low levels of departmental spend under management, and overall a declining spend profile.	Formalised customer agreements with all departments and strong governance of Government Procurement with all departments engaged.
Unable to leverage the large scale outsourced System Integrators as part of centralised ICT procurement.	Targeted engagement with systems integration suppliers, working closely with the relevant Crown Commercial Representatives.
Failure to demonstrate increased spend with SMEs because of poor	Targeted work on data and supply chains. Targeted action on those departments who will make the biggest difference to the 25% aspiration.

data and declining spend.	
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4. Agile

The Challenge

Many large government ICT projects have been slow to implement and technology requirements have not always been considered early on in the policy making process, resulting in an increased risk of project failure. Agile project methods can improve the capability to deliver successful projects, allowing projects to respond to changing business requirements and releasing benefits earlier.

Objectives

To improve the way in which the central government delivers business change by introducing agile project management and delivery techniques.

By 2014, Agile will reduce the average departmental ICT enabled change delivery timescales by 20%.

Key Metrics

- Number of departments who have used the online Agile facility
- Number of projects using “agile” techniques, by department
- Total number of instances where the virtual centre of excellence has been utilised

Delivery

A cross-government steering group led by DWP has been established with representation from targeted departments. The Major Projects Authority will also ensure that new projects adopt Agile methods where appropriate. In addition, a list of agile SMEs has been compiled to establish an ecosystem of agile SME to support the embedding of agile techniques across Government.

An online agile best practice facility (a virtual centre of excellence) will be established and maintained to provide advice, communication, help, support and feedback.

A contractual framework will be produced to access relevant services provided by SMEs without the need for lengthy and costly competitions.

Key Milestones	Completion Date
Commence cultural and behaviour awareness and training in departments	September 2011
Departments nominate agile projects and publish high level plans	October 2011
Services catalogue for suppliers set up	October 2011
Individual departmental plans for agile training / support / setting up agile solution centres	December 2011
1st releases or total ICT enabled business projects delivered to live	March 2012
Measure outcomes and benchmark	April – June 2012

Accountability

The Senior Responsible Owner for Agile is Kenny Robertson, DWP Corporate & Shared Services IT Director.

Managing top 3 risks

Risk	Mitigating Action
A lack of real and consistent support in departments, meaning they do not fully embrace the necessary behaviours or undergo the cultural changes necessary to make agile work properly.	<ul style="list-style-type: none">• Departmental CIOs to obtain Permanent Secretary formal backing to adopt Agile.• All Director & Deputy Director change management personnel to undertake one day agile awareness sessions.• Departments to adopt practitioner and stakeholder training curriculums.• Include the Major Projects Authority and Cabinet Office in the learning and introduction of agile across government via the Chief Operating Officer's office.
Identifying relevant candidate projects / programmes.	Understand and use the strike out question set around characteristics of candidate projects.
Obtaining funding for involvement of SMEs to support the initiative.	Project financials and business cases are to include specific funding stream for agile SME support for full project durations.

5. Capability

The Challenge

The ICT Strategy set out a range of new approaches and technologies for the public sector ICT profession to adopt. However, there is a knowledge and skill deficiency across government that makes it difficult for civil servants to fully exploit these new approaches and technologies. This is reflected in the over reliance on expensive consultants, contractors and external recruitment at middle and senior levels.

Objectives

To increase the capability of ICT professionals at all levels in the public sector and reduce expenditure on external expertise by creating an ICT professional curriculum.

Government will establish a strong talent pipeline of successors for senior posts; increase lateral development moves for staff with high potential; and ensure continued recruitment and retention of graduates through the Technology in Business (TIB) fast stream, averaging 20 per year by September 2014.

Key Metrics

- Number of staff in the TIB fast stream
- The percentage of retained headcount filled by ICT contractors
- Number of Chief Information Officers recruited from within the public sector
- Number of people in the IT Academy
- Number of cross-government temporary assignments per annum in both the Senior Civil Service and below

Delivery

The ICT Capability Strategy will set out the following portfolio of work streams, each with distinct deliverables, timetables, outcomes and risks, to meet the challenge and objective set out above:

- a Blueprint for career development in the Government IT Profession;
- cross-government processes to support implementation of the Blueprint;
- a communications programme to support the delivery & implementation of the Strategy; and
- a measurement method and evaluation to baseline and track the impact of the Strategy.

A key aspect of successful delivery will be working with Civil Service Learning to enable the development of a coherent set of curricula for professions that have overlaps (for instance IT, PPM, procurement), and providing a learning portal that supports IT professionals in the full range of their training and development needs.

Key Milestones	Completion Date
Produce a model for retained IT function and IT skills needs	February 2012
First IT Profession Curriculum components in place	April 2012

Cross-government talent management process in place for the SCS	September 2012
Revamped TIB fast stream development programme ready for 2012 intake	September 2012
IT and CIO Academy development programmes defined for staff with potential for SCS and CIO roles respectively	September 2012
10 cross-government temporary assignments per annum at each of SCS and below SCS	September 2013
Career development framework ("Blueprint") complete for all IT Professionals	September 2013
50 people in the IT Academy	September 2014
10 'graduates' of the CIO Academy	March 2015
No more than 15% of departments retained headcount will be filled by contractors	March 2015

Accountability

The Senior Responsible Owner for ICT Capability is Andy Nelson, CIO for the Ministry of Justice (MoJ). Joe Harley is the Head of Profession.

Managing top 3 risks

Risk	Mitigating Action
No cross-government agreement on standard approaches to progression and accreditation.	Development work led and delivered collaboratively by departments.
Blueprint and management processes not adopted by departments.	Development work led & delivered collaboratively by departments.
Individuals do not identify and engage with IT Profession career paths and community.	One of the work streams is focused on communications to staff.

OBJECTIVE 2: CREATING A COMMON ICT INFRASTRUCTURE

35. Government departments have traditionally worked independently to design, procure and run their ICT solutions. This has resulted in an expensive and fragmented ICT infrastructure which often duplicates solutions and impedes the sharing and re-use of services.
36. Government will create an environment for a common and secure ICT infrastructure based on the exploitation and re-use of existing assets. This will be underpinned by a suite of mandated standards which will be published and updated. The use of these standards can make ICT solutions fully interoperable to allow for re-use, sharing and scalability across organisational boundaries into local delivery chains.
37. Open standards, reference architecture and an effective risk management regime for information assurance and cyber-security will not generate savings within themselves, but will act as key facilitators to the creation of an environment for a secure and common infrastructure, of which savings are detailed in table 2.
38. The governance structure and the individual delivery plans central to the creation of a common ICT infrastructure are outlined below.

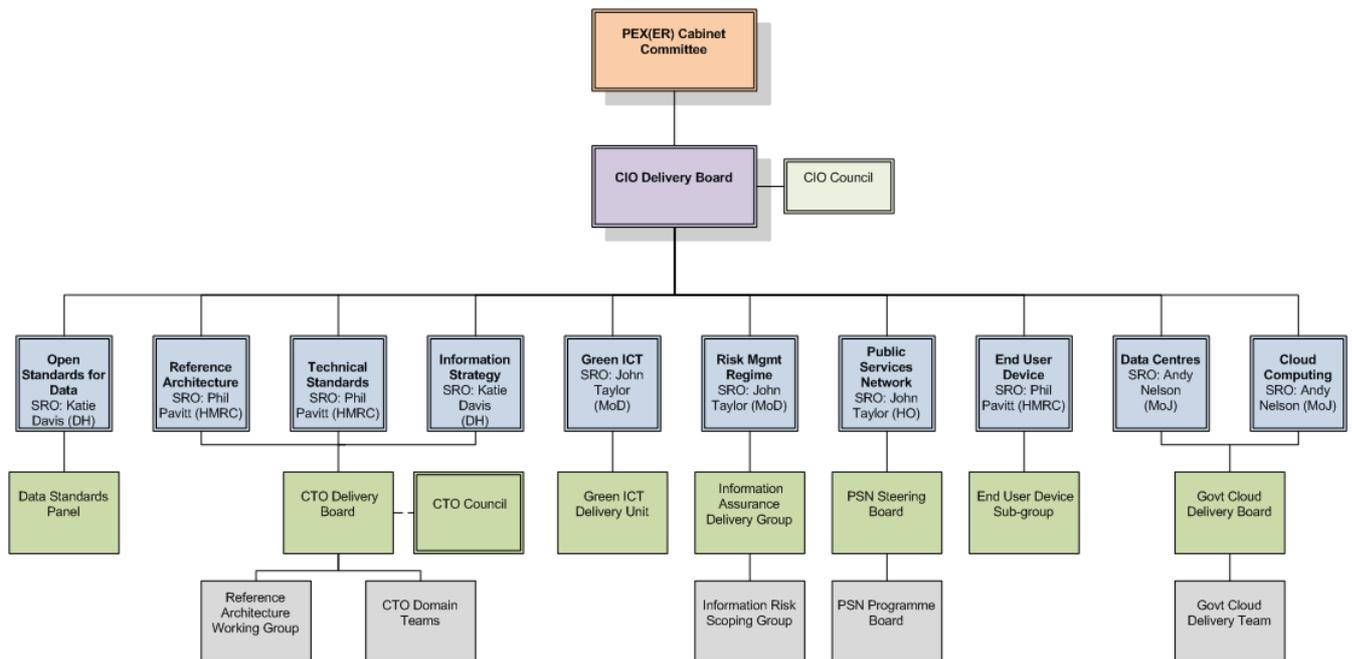


Figure 6: Objective 2 delivery areas – governance

6. Open standards for data

The Challenge

Government has identified inefficiency in the production and use of data by departments through unnecessary duplication. Data that is held by government is not based on a common set of standards, making it difficult to share information effectively between departments, businesses and citizens and hindering comparison and transparency.

Objectives

To ensure that appropriate data is transparent and shared rather than duplicated, the Government will implement engagement processes for open data standards activity and 'crowd source' priority areas for data standards. Benefits to be delivered from this work include:

- consistent, tight and specific data standards enabling comparative benchmarking, thus supporting greater accountability, transparency of government services and informed choice for the citizen; and
- use of widely accepted and published open data standards will reduce barriers to entry for service providers, leading to increased localised innovation and diversity of provision.

Key Metrics

- Number of approved open standards for data published
- For each approved standard, the percentage of departments that have adopted/have an implementation approach for the adoption of the standard

Delivery

To develop a core set of essential open data standards, government will run an engagement process which will create a 'front door' to crowd-source priority areas and potential solutions. A Data Standards Panel will be established to assess the input received and develop core standards and provide recommendations to the Open Standards Board that will provide senior endorsement and oversight of the process and arbitration if required.

Key Milestones	Completion Date
Creation and launch of 'front door' crowd-sourcing mechanism(s) based upon existing government assets. Establishment and operation of the Data Standards Panel and Open Standards Board (dependency).	December 2011
Review by departments of their existing data standards to propose standards for cross-government adoption or to highlight gaps.	December 2011
Core set of priority essential standards areas identified by Data Standards Panel. Commencement of submission of recommendations to the Open Standards Board.	March 2012
Agreed open data standards, starting with the identified	

priority areas, are approved by the Open Standards Board and made readily accessible.	June 2012
A set of open standards for data adoption established and progressed by government departments, driven by the Open Standards Board.	June 2012
Accountability	
The Senior Responsible Owner for Open Standards for Data is Katie Davis, Managing Director for NHS Informatics at the Department of Health.	
Managing top 3 risks	
Risk	Mitigating Action
Vested proprietary interests and inertia of changing existing systems will prevent agreement and/or impact rate of uptake.	Building upon the standards already in use across departments to minimise change. Establishment of the Open Standards Board to provide senior governance of standards implementation and potentially mandating usage.
Too many standards – maintenance effort is under-estimated.	Focus on a core set of essential open data standards.
Implementation of open standards is unfunded.	Ensure that Cabinet Office and CIO Delivery Board have received clear plans from departments including allocated funding to align to the approved core data standards.

7. Reference Architecture

The Challenge

Efforts to create a common infrastructure and improve the sharing and re-use of ICT solutions and services have been hindered by the lack of an agreed set of proven structures and common definitions of elements of an ICT domain. By creating a Reference Architecture government can provide common capability and component definitions and share the same vocabulary. This is essential to enable government to make the right technology decisions.

Objectives

Government will deliver a Reference Architecture, which together with the assets and services register will enable the sharing and re-use of ICT services and solutions and the creation of a common ICT infrastructure. Key benefits to be realised include:

- reduced technological lock-in, whilst stimulating competition and encouraging innovation; and
- greater SME engagement in government projects through the use of open standards and reference architectures, and the componentisation of government ICT projects.

Key Metric

- Percentage of procurements that are aligned with agreed standards in the Reference Architecture.

Delivery

HM Revenue and Customs (HMRC) will lead the development of the government reference architecture. HMRC will work in partnership with the Cabinet Office and consult key government departments, academia, suppliers, industry analysts, local authorities and CESG (the National Technical Authority for Information Assurance) to draft and establish a Reference Architecture. Once created, government will review and update the Reference Architecture on a regular basis and embed it in the Cabinet Office process for assessing major ICT projects and departmental processes.

Key Milestones	Completion Date
Identify all deliverables from other ICT delivery streams that will be captured in the Reference Architecture	September 2011
Complete first round of industry/government/academia consultation	October 2011
Publish first draft of Reference Architecture	December 2011
Complete final round of consultation	February 2012
Hand over the baselined Reference Architecture to the appropriate bodies	March 2012

Accountability

The Senior Responsible Owner for cross government Reference Architecture is Phil Pavitt, HMRC CIO and Director General of Change.

Managing top 3 risks

Risk	Mitigating Action
Unable to gain consensus across departments to an agreed single Reference Architecture.	Collaboration across departments with deliverables being a blend of existing and industry collateral. Government will build on existing departmental models and also take best practice from the published United States and Australian reference material.
Component definitions continue to evolve from other delivery areas, making it difficult to baseline reference architecture.	Work with all other relevant delivery areas to feed in collateral (e.g. end user device definition).
The Reference Architecture becomes 'shelf ware' and is not used / adhered to.	Gain agreement from departments to extend use of the Reference Architecture definitions to internal projects. A federated governance model needs to be established.

8. Open Technical Standards

The Challenge

There is a lack of re-use and sharing of ICT solutions across government, with departments commissioning new solutions when something similar already exists. Departments may incur excessive transition costs, loss of data or significant functionality when they try to share information and/or ICT services.

Objectives

To allow for greater interoperability, openness and re-use of ICT solutions, the government will specify and agree a set of agreed and mandatory open technical standards, alongside agreed open standards for data and a Reference Architecture.

Through greater interoperability of ICT solutions government will reduce the costs, timescale and risks associated with ICT solutions and the possibility of being locked in by a specific technology or supplier.

Key Metrics

- Number of open technical standards, per reference architecture area, approved and published
- For each approved standard, the percentage of departments that have adopted/have an implementation approach for the adoption of the standard

Delivery

Government has crowd-sourced open standards. Responses will be assessed along with the standards that emerge from the other ICT Strategy deliverables to form a draft suite of mandatory open technical standards. Following external consultation, government will publish an agreed suite of mandatory open standards.

In order to identify relevant standards, it is critical that other delivery areas (such as end user devices and the Public Services Network) establish a mechanism for identifying which areas of their operating model would benefit from government-wide open standards being deployed.

Once created, government will review and update the open technical standards on a regular basis and embed compliance in the Cabinet Office process for assessing major ICT projects, and departmental processes.

Key Milestones	Completion Date
Publish the findings from the crowd-sourcing consultation and the approach to identifying and mandating a set of technical standards	October 2011
Engage with other delivery areas to coordinate the publication of their emerging open technical standards	November 2011
Publish the first release of a draft suite of mandatory Open Technical Standards	December 2011
Open Technical Standards agreed with the appropriate bodies	March 2012

that will be responsible for their governance and future development	
Review level of adoption of Open Technical Standards by departments	June 2012
Accountability	
The Senior Responsible Owner for Technical Standards is Phil Pavitt, HMRC CIO and Director General of Change.	
Managing top 3 risks	
Risk	Mitigating Action
The risk of protracted debates on architectures and standards result in long lead times or “academic argument”.	Strong leadership and governance processes with efficient engagement channels.
The selection of standards leads to unexpected consequences in the ICT marketplace or in departmental ICT infrastructure.	Conduct impact assessment as a part of the process. Ensure efficient engagement processes are in place with key stakeholders.
Challenges of migration to new standards from legacy arrangements.	Adoption of new standards should be considered as part of the impact assessment and migration plans put in place for transition during the natural lifecycle of the ICT provision or mandate and acceptance of cost if not part of natural life-cycle.

9. Cloud computing and Applications Store

Creating a Common ICT Infrastructure

The Challenge

We currently have an expensive and fragmented ICT infrastructure which often duplicates solutions and impedes the sharing and re-use of services and solutions. Government is committed to exploit cloud computing to increase public sector agility and reduce the cost of its ICT.

Objectives

Government will exploit commodity ICT services through the use of cloud computing technologies to:

- reduce government ICT running costs and power consumption through radically increasing re-use of assets and services including software and hardware, thus 'greening' our ICT provision and saving both the direct additional costs of duplicate buying, as well as the indirect costs of running multiple redundant procurements;
- optimise use of our data centre infrastructure - which traditionally has been hugely inefficient. Maximising utilisation will allow rationalisation and consolidation of the data centre estate and lead to significant cost savings;
- increase public sector agility through moving towards consuming ICT as a utility – where services can be supplied on a pay as you go basis, scaled up or down according to need. This will also allow the quicker implementation of government policies; and
- create a fairer and more competitive marketplace by a standards based cloud environment that enables a range of service providers constantly improving the quality and value of the solutions they offer, from small SME organisations providing niche products to large scale hosting and computer server capacity.

In conjunction with cloud computing, the creation of a Government Applications Store will deliver an online portal for public sector organisations to readily source, share and promote certified ICT solutions.

The projected central government savings for shifting to cloud computing technologies in the spending review period are:

Savings by Year in £m			
2011-12	2012-13	2013-14	2014-15
-	20	40	120

Key Metrics

- Cost per FTE per commodity service
- Percentage of central government departments' new ICT spending on public cloud computing services
- The number of accredited products on the Government Applications Store
- The number of products departments have adopted from the Government

Applications Store

Delivery

The Government Cloud Authority has been established as a central body to set standards for commercial, service management and security to enable the adoption of cloud services. Initial delivery focus will be on the CIO Delivery Board departments but will then extend to other central government departments and onto local authorities and wider public services.

Key Milestones	Completion Date
Cloud Computing Strategy published	October 2011
First annual timetable and plans from central government departments detailing how they will shift to public cloud computing services	December 2011
Current Government Delivery Partner pilots completed	March 2012
Initial Applications Store services launched	March 2012
50 accredited products on the Government Applications Store	December 2012
50% of central government departments' new ICT spending will be on public cloud computing services.	December 2015

Accountability

The Senior Responsible Owner for delivering the Government Cloud programme is Andy Nelson, CIO of the Ministry of Justice.

Managing top 3 risks

Risk	Mitigating Action
Ability to change the culture of government departments to adopt commodity products rather than custom services.	The Government Cloud programme (G-Cloud) is reliant on distributed delivery, with different work-streams led and delivered by different government departments and public bodies. The Foundation Delivery Partners (FDPs) will ensure that departments and public bodies are fully involved in agreement of plans for the initial solutions being developed. The G-Cloud programme will also establish a specific communications and engagement work stream to ensure all departments are involved, shape and understand the scope and benefit of cloud products and solutions.
Limited engagement by suppliers resulting in inability to drive standardisation and rationalisation.	A Cloud Services Group has been established and will work in partnership with FDPs to ensure targeted and sustained engagement with suppliers. Consideration will be given to termination of existing contracts where benefits can be realised.

Lack of flexibility in the procurement processes introduces constraints around efficiencies and their timeliness.

Establishment of a Commercial Working Group, tasked with addressing issues around procurement putting in place new fit for purpose procurement vehicles.

10. Public Services Network (PSN)**Creating a Common ICT Infrastructure****The Challenge**

Currently each public body designs, develops, installs and maintains its own network. This approach has directly led to fragmented, expensive and duplicated service delivery and creates barriers to the sharing of services and information. Government is committed to modernising its approach to provisioning networks to reduce costs and enable greater agility and interoperability.

Objectives

To create a secure Public Services Network (PSN) constructed from a network of networks, built to common standards that enables the delivery of public services from any place by any provider at lower cost.

The projected central government savings for PSN in the current Spending Review period are:

Savings by Year in £m			
2011-12	2012-13	2013-14	2014-15
30	100	130	130

Key Metrics

- Total number of PSN compliant telecoms contracts in relation to total number of telecoms contracts
- Total number of public sector organisations using PSN

Delivery

The PSN programme has been established. Detailed implementation and engagement plans are in place with resources and actions planned to:

- identify common (open) standards to ensure interoperability;
- influence and drive suppliers to provide connectivity and deliver standard commercial products compliant with PSN standards;
- provide commercial vehicles to simplify procurement of PSN compliant services at competitive prices; and
- manage the transition of public sector organisations to PSN compliance in a secure environment within the current Spending Review period.

Key Milestones	Completion Date
Standards selected and the first network services operational. (The standards will be captured in Open Technical Standards through appropriate governance.)	September 2011
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.	March 2012
The PSN Strategic Procurement route provides a competitive telecommunications marketplace through a fully operational	September 2012

PSN Connectivity Framework (providing network and network connection services) and the PSN Services Framework (providing fixed and mobile voice, internet, conferencing and CCTV services).	
80%, by contract value, of government telecommunications will be PSN compliant.	March 2014
Complete implementation of security model and cyber defence regime across government which ensures that the boundaries of the environment are suitably protected, that users are appropriately authenticated and trusted and that key capabilities are always available to key personnel, even in disaster or terror situations. (Note: some elements of this, such as boundary protection and authentication, will be available by 2013.)	End 2014

Accountability

The Senior Responsible Owner for PSN is John Taylor, CIO of the Ministry of Defence.

Managing top 3 risks

Risk	Mitigating Action
A procurement vehicle will not be provided in timely manner to support take-on of large number of public sector organisations.	All cross government telecommunications procurement vehicles will be brought under control of the PSN Programme. There will be a migration from the initial procurement vehicles let in mid 2011 (the Government Secure Intranet Convergence Framework (GCF) and Managed Telecommunications Service Convergence Framework (MTCF)) to the delivery of full PSN procurements for connectivity and services which began in August 2011 for award in early 2012.
Government bodies do not implement PSN and therefore the benefits are not fully realised.	Strong governance through the CIO Delivery Board, CIO Council and PSN Steering Committee and Programme Board. Compliance enforced to reflect the Government CIO letter to all CIOs requiring PSN compliance prior to approval of any telecommunications spend on new builds or changes. Extensive industry engagement to ensure that telecommunications suppliers implement the industry-led PSN standards and offer only those services to government.
The supplier community will look to protect traditional revenue volumes that add no value to government and will continue to offer	Strong and extensive industry engagement through for example, the industry led PSN supplier Governance Body (PSNGB) and regular industry contact. Government becoming a more intelligent and joined up procurer of telecommunication services through the PSN Procurement Strategy which will drive the use of PSN frameworks across government organisations, leading to

different solutions to different public sector customers at extra cost, rather than offering competitive standard PSN services to all public service providers.

adoption of common PSN solutions across government. The PSN Procurement Strategy will create an equal opportunity for all suppliers to provide the best and most competitive provision of PSN Services.

11. Data Centre Consolidation

The Challenge

Data Centre provision across central government and the wider public sector estate is hugely inefficient and offers potential for significant costs savings within this Spending Review period. With average server utilisation less than 10% in places, government must build on the good work of a number of departments to rationalise and consolidate the data centre estate.

Objectives

Government will reduce the number of data centres and increase the utilisation of the data centre estate, reducing the cost and carbon footprint of government ICT (initially central government and then the wider public sector) in relation to the provision of IT data centres and associated services such as mass print output and IT disaster recovery.

The projected central government savings for data centre consolidation in the current Spending Review period are:

Savings by Year in £m			
2011-12	2012-13	2013-14	2014-15
-	20	60	80

Government will reduce the cost of data centres by 35% over the next five years.

Key Metrics

- Number of data centres and associated hosting services
- Cost per server
- Percentage of servers virtualised
- Utilisation of servers

Delivery

The approach to implementation consists of:

- a discovery exercise to identify and compare the costs of data centres and associated services;
- consolidation, rationalisation and virtualisation of government-owned data centres and assets;
- consolidation, rationalisation and virtualisation of supplier-owned data centres and assets currently providing service for government; and
- definition and provision of a standard common service.

The programme will utilise ‘lean’ continuous improvement techniques in order to lower the cost of data centres and associated services over a 5 year period. Initially, the programme will implement actions in Ministry of Justice, Department for Work and Pensions, Ministry of Defence, HM Revenue and Customs and the Home Office and then roll out across central government. The approaches taken will enable future

take up by local government and the wider sector.

Key Milestones	Completion Date
Creation and agreement of programme plans <ul style="list-style-type: none"> • commitment to funding and resources • identification of quick wins to be delivered in FY2011/12 • identification of long-term benefits 	October 2011
Complete mandatory data collection	December 2011
Publish data centre standards	February 2012
Realise benefits from quick wins	April 2012
New Government Data Centre Hosting Procurement Framework	December 2012
Realise benefits from strategic long-term actions	October 2016

Accountability

The G-Cloud Authority is responsible for data centre consolidation. The Senior Responsible Owner for the programme is Andy Nelson, CIO of the Ministry of Justice.

Managing top 3 risks

Risk	Mitigating Action
Absence of an agreed standard data centre service level (defined in terms of business outcomes) which we can use to compare cost-effectiveness of existing cross-government data centre provision, and to standardise future contracts.	Select and agree a standardised set of definitions for data centre as a service, print centre as a service, and infrastructure as a service.
Absence of an accurate, complete, normalised set of data centre cost comparison data across government upon which to base effective recommendations for cost reduction.	Conduct independent market pricing and service assessments across government against the standard service level, using a mixture of in-house and specialist third-party expertise and methodologies as appropriate to identify the key areas where efficiencies can be made.
Contractual constraints on consolidation resulting in an inability to gather data, and/or achieve price reductions from data centre suppliers within existing contract terms.	Gather data across government regarding the scope of supply, constraints on supply contract values and terms to identify the most controllable costs. Put in place a long term control strategy over multiple years aimed at converging individual

	departments' sourcing strategies to create a common infrastructure.
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12. End User Device (EUD) Strategy

The challenge

There are currently a variety of desktop / device solutions across government, each developed for specific service requirements; diversity being driven by service levels / security requirements, specific outsourcing contracts and by differing abilities to exploit economies of scale and bulk purchasing power.

Objectives

The implementation of this strategy will deliver cost savings and improve the effectiveness of public sector users by:

- Delivering an end user device standard that separates the business application being used from the physical hardware device, removing vendor “lock-in” and allowing reuse across all devices and all departments. The term end user device is used throughout the strategy to recognise this separation and the breadth of scope (i.e. PC, Laptops, Tablets, Thin client, Smart Phones etc);
- Exploiting and shaping the current technology-led market for end user devices, to ensure that industry supplies the service requirements of the Government. This is a market which is increasingly commoditised, with physical devices often provided as part of services tailored to common usage cases; and
- Creating common definitions, ways of working and collaboration to maximise reuse and exploit Government buying power.

Government will adopt a common approach and standards for end user devices to:

1. deliver best-in-sector pricing to all departments, rather than just the very largest
2. encourage greater market competition which should further reduce cost
3. lower the cost of service transition between suppliers
4. establish common security standards where applicable
5. make the public sector more productive, flexible and mobile
6. reduce instances of bespoke solutions;
7. deliver volume related savings; and
8. support optimising the number of devices per user.

The EUD Strategy is expected to deliver central government savings of:

Savings by year in £mil			
2011/12	2012/13	2013/14	2014/15
-	10	20	30

Key Metrics

- Cost of device per FTE
- Number of devices per FTE
- Number of customers (legal entities) adopting services in line with the EUD strategy
- Number of end users serviced through principles in the EUD strategy
- Time taken to complete successful boot-up of devices

Delivery

The four key principles by which Government will address the end user device landscape are to:

- introduce pan-government standards for devices;
- separate layers of the device infrastructure;
- exploit new device technology for business benefit; and
- managed refresh cycles that best meet business need.

The End User Device Strategy will be delivered as a programme of work in 6 streams in line with best practice developed within ICT implementation workstreams. Implementation of the strategy will be the responsibility of individual departments as will measurement of the realisable benefits. Departments will have to demonstrate that all end user device changes are in accordance with the strategy and that their technical direction aligns with the strategy.

Key Milestones	Completion Date
End User Device Strategy published and delivery programme commenced	October 2011
Desktop prototype implemented to show benefits and challenges of computing in the cloud	December 2011
Early adopters to test strategy implementation approach	January 2012
Full implementation of End User Device Strategy commences	January 2013

Accountability

The Senior Responsible Owner for the End User Device Strategy is Phil Pavitt, HM Revenue and Customs CIO and Director General of Change.

Managing top 3 risks

Risk	Mitigating Action
Key consumers and suppliers may not contribute effectively to create a strategy that has relevance and buy in cross government.	Engagement by marketing and communications and commercial and market management streams in the delivery phase.
Suppliers may leverage existing	No contract should be extended unless

<p>departmental relationships, or offer small concessions on current contracts, in exchange for extensions to contracts.</p>	<p>approved centrally.</p>
<p>Without a clear definition of desktop pan government it is impossible to show best value for money.</p>	<p>Working with departments and industry analysts to develop cost model around the strategy definition of desktop.</p>

13. Green ICT

The Challenge

Government operates one of the largest ICT estates, where ICT is a major consumer of energy and natural resources. As energy costs continually rise and our dependence on ICT increases, the need for government to operate a cost effective, energy efficient ICT estate delivering quality public services to the tax-payer has never been greater.

Government ICT, and how it is used, has a key role to play in this. Not only because ICT consumes resources and power, releasing significant amounts of greenhouse gas (GHG) emissions, but also because ICT can be leveraged to green the wider estate and to change the way government operates and provides services, maximising efficiency and minimising environmental impact.

Objectives

Publish a Greening Government ICT strategy in line with the Government ICT Strategy and wider carbon reduction policies. ICT will be leveraged as an enabler to change the way government operates and provides services, maximising efficiency and minimising environmental impact.

Key Metrics

- Adoption of EU standards in procurement and current delivery of data centres
- Volume of CO2 and cost of energy caused by government use of data centres
- Power Usage Effectiveness (PUE) of each data centre used by government

Delivery

A working group of sustainable ICT, procurement and policy experts from across the public sector, the Green ICT Delivery Unit (GDU), has been established to develop the strategy and supporting tools. Following publication, the GDU will monitor and report on its implementation. Priority implementation actions include:

- embedding Green ICT principles into the design of government ICT estate to ensure energy efficiency, maximise the use of equipment already in operation, eliminate wasteful redundant ICT and seek its re-use. Migrating to common infrastructures and maximising shared service opportunities across government;
- ensuring ICT environmental impacts are minimised across the life-cycle and Green principles are embedded from procurement, in use to recycle and disposal;
- exploiting ICT to deliver low carbon impact technology solutions for both government operations and public services;
- improving engagement with ICT suppliers and external partners to drive Green ICT Innovation across the government estate by identifying areas where ICT could improve energy efficiency and reduce waste; and
- improving employee engagement and awareness towards the Green agenda to accelerate cultural and behaviour change.

A governance structure for its delivery has been established. Current priority work

streams are:

- strategy working group: to set out our high level vision and key commitments over the next four years;
- maturity and metrics working group: to develop a framework to enable departments to assess their maturity in embedding green principles and practices into their organisations; and
- Sustainable ICT procurement working group: to identify current and develop future procurement standards, terms and conditions, and best practice that is aligned to wider efficiency and reform initiatives.

The governance model and work-plan will be reviewed and set on an annual basis.

Key Milestones	Completion Date
Strategy and implementation plan of key targets and commitments published including Green ICT Workbook of best practices and dashboard of top tips	October 2011
Maturity model developed and piloted by 6 organisations	November 2011
Publication of first report of central government maturity assessment and dashboard	May 2012
Government departments to standardise on ICT carbon foot printing methods	April 2015

Accountability

The Senior Responsible Owner for Green ICT is John Taylor, CIO of the Ministry of Defence.

Managing top 3 risks

Risk	Mitigating Action
Current financial climate restricts necessary investment in green initiatives.	Consultation with key stakeholders. Making a compelling case for green in the strategy - that addresses current issues and longer term sustainability and clearly demonstrate the cost savings to be made over life, as a result of reduced energy consumption and waste.
Green ICT seen as a standalone rather than integral part of the ICT strategy.	Green ICT strategy and supporting tools developed with ICT strategy leads and vice versa. Empower Departmental CIOs/CTOs and make responsible for green ICT.
Successful implementation depends on behavioural change – which needs to come from the top.	Gain senior support to drive initiative. Make Ministers / Permanent Secretaries / Parliamentary Under-Secretaries of State responsible for their department's achievement of Green.

14. Information Strategy

The Challenge

Government is not realising the very significant intrinsic value of the information it holds as it has not previously treated information as an organisational asset. This is evident in the restricted ability to share and provide clean and consistent information between government departments and citizens.

Objectives

To exploit the value of information that it holds, government will optimise the secure, efficient, open and safe creation and use and re-use of information assets. Government will identify core principles to allow departments to create their own Information Strategies therefore providing a common basis for cross government shared information services.

Key Metrics

- Number of departments with a departmental information strategy
- Percentage of departments aligned to the approved set of information strategy principles

Delivery

Key aspects by which government will realise this vision include:

- developing a set of common principles regarding Information Strategy;
- taking a devolved approach with each department developing its own Information Strategy to apply these common principles within its own domain; and
- identifying gaps / harmonisation opportunities across departmental strategies including, where relevant, identifying any common information components.

The Public Sector Information Domain will be the working group responsible for developing the information strategy principles. The CIO Delivery Board will:

- approve the information strategy principles and commitment to align to them;
- approve scope of work and timeline for the development of a small set of necessary common information components; and
- drive pan-government commitment to align to and implement information strategies in accordance with agreed principles.

Key Milestones	Completion Date
Publication of cross-government information strategy principles	December 2011
Departmental Information Strategies developed and published that are aligned with the principles	March 2012

Accountability

The Senior Responsible Owner for the Information Strategy is Katie Davis, Managing Director for NHS Informatics at the Department of Health.

Managing top 3 risks

Risk	Mitigating Action
Lack of understanding of the importance of information across government / lack of engagement.	Pan-government agreement of information strategy principles and commitment to alignment in their own departmental information strategies.
Lack of development of information strategies within delivery timescales.	CIO Delivery Board commitment to information strategy production.
Lack of implementation of information strategies across government departments to realise the benefits.	CIO Delivery Board commitment to implementation of departmental information strategies.

15. Risk management regime

The Challenge

Today, information and cyber security threats are becoming increasingly complex and are evolving at a rapid pace. At the same time, traditional risk management regimes used by government are no longer adequate to mitigate against this threat.

Objectives

To develop an appropriate, proportionate and effective risk management regime for information and cyber-security, enabling departments to understand and manage their risk exposure for all ICT solutions. This must be achieved within the remit of supporting productivity and reducing cost.

Key Metrics

Once base lined:

- Percentage of software for which software security patches are available on a regular basis.
- Percentage of software that is out of mainline security support, but still in use.
- Percentage of systems that apply available critical security patches to all of their supported software; to more than 90% of machines (clients, servers, mobile devices) within 7 days, 30 days and 90 days.
- Reductions in the cost and programme development time that are enabled by the adoption of the regime and the associated changes to the process of system accreditation.

Delivery

- Establish a baseline of current governance regimes, risk boundaries and appetites.
- Develop an initial pan-government risk management regime (governance, procedures and standards):
 - relates to projects and services as they are developed and managed through life;
 - use the Information Assurance maturity Model outputs alongside the Annual Departmental SIC Reporting (each year once established).
- Understand the mechanisms to balance business need with technical risk:
 - first stages already established through CESG Information Standard and good practice guides (these will be reviewed as other ICT Strategy delivery strands develop);
 - evolve this approach based on lessons learned (annual review).
- Investigate accreditation models and standards, along with the compliance mechanisms:
 - important early work that is based on the National Technical Authority (NTA) proposals for PSN Accreditation
 - accreditation already underway but formal adoption of an approach to 'accredit once use many' by Dec 2011 with further refinements to follow.
- Use PSN to trial and demonstrate the above:
 - ongoing with additional ICT delivery areas (such as Cloud Computing) to be brought into the regime over the next year.

- Refine the risk management regime:
 - The Information Risk Management Regime should be benchmarked against 'best in breed' from other risk management regimes using a model such as the Institute of Internal Auditors' Maturity Model.

Key Milestones	Completion Date
Scope boundaries	October 2011
Design and agree a high level Information Risk Management governance process	December 2011
Establish current maturity level and define targets	March 2012

Accountability

The Senior Responsible Owner for the Risk Management regime is John Taylor, CIO for the Ministry of Defence.

Managing top 3 risks

Risk	Mitigating Action
Breaking down complex subject into achievable elements.	Sound programme management of the scoping task leading to a structure and process that promotes governance at the centre but with delegated responsibilities to other specialists for implementation.
Understanding the synergy with cyber security to ensure benefits are shared.	Early engagement with GCHQ, Office of Cyber Security and Information Assurance (OCSIA) and PSN to scope the issue.
Understanding the threat and its dynamic nature; developing situational understanding.	Linkage with the Cyber Strategy and building on commercial / contractual arrangements to deal effectively with changes in threat.

OBJECTIVE 3: USING ICT TO ENABLE AND DELIVER CHANGE

39. ICT is a key enabler for opening up public service delivery to a range of providers competing to offer better and more cost-effective services. A common ICT platform provides the opportunity for a diverse range of providers to generate innovative solutions. By opening up the market, costs will come down for the solutions and the platform itself, innovation will increase and services will improve.
40. ICT also provides an opportunity to change the relationship between citizen and government so that policy formulation and service design are developed in collaboration with citizens. It is difficult to identify projected savings for these actions. However, these actions form part of the wider commitment to open up public services.
41. The governance structure and the individual delivery plans central to using ICT to enable and deliver change are outlined below.

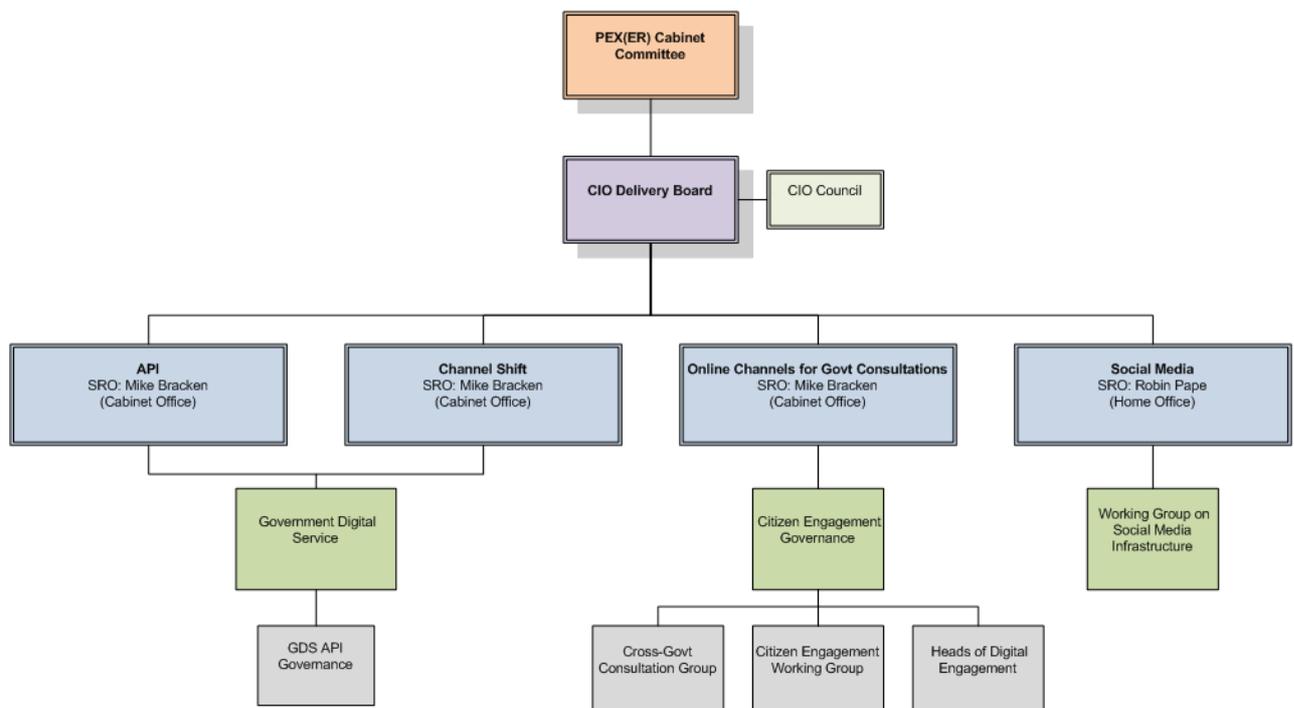


Figure 7: Objective 3 delivery areas – governance

16. Channel Shift**The Challenge**

Innovations in online commercial services have set high standards for an increasingly mobile population. The expectations of many citizens have shifted from traditional face-to-face, telephone or paper channels to more responsive 24/7 digital services, including delivery through mobile devices. To make the lives of citizens simpler and easier, and to deliver services more sustainably, government has established a principle of digital by default for all information and services, with key digital by default services already in development.

Objectives

Government is committed to providing easy-to-use, trusted and flexible information and transactional services that are delivered digitally by default. For those for whom digital channels are less accessible the government will ensure access is maintained through a network of 'assisted digital' service provision.

Key Metrics

- Percentage take up of digital channels
- Percentage of transactions successfully completed
- Reported user satisfaction
- Cost per successful transaction per channel

Delivery

The Government Digital Service (GDS) will drive and support channel shift across government. Government will introduce digital service delivery capabilities and deploy these incrementally to existing services. Digital by default principles will be embedded into the service delivery chain to ensure efficient end to end digital services are in place, supported by cost-effective assisted digital provision where required. It will also continue the development of a single government web domain that will reduce the current bureaucracy surrounding government websites and improve the user experience.

There are currently no consistent cross-government performance metrics for digital information and services, and little cross-channel metrics within services to effectively measure the success of channel shift. Work will be undertaken within GDS to establish standard metrics and to baseline activity over the year 2011-12, after which clear key performance indicators (KPIs) will be established, and following which metric data will be available to monitor the progress of channel shift. For comparison purposes, GDS will work with departments to establish the most effective way of making available transaction cost data on non-digital channels.

Key Milestones	Completion Date
Establish Government Digital Service	October 2011
Establish a clear, standard set of digital metrics for government, and baseline current activity	March 2012

Launch Beta version of single government web domain for public testing	February 2012
Publish implementation plan for channel shift	October 2012
Accountability	
The Senior Responsible Owner for Channel Shift is Mike Bracken, Executive Director for Digital through the GDS, in the Cabinet Office.	
Managing top 3 risks	
Risk	Mitigating Action
Low level of citizen take up of online public services.	To encourage citizen take up of online public services there must be the most convenient, usable and efficient route to access services. GDS will implement a user-centric approach to service development to ensure online services are the preferred channel for public services, and ensure that services create an incentive to users to move online.
Security and fraud risk.	GDS will work closely with security colleagues to mitigate any security risks. GDS will also support the Identity Assurance programme to deliver across transactions.
Delivery of identity assurance solution.	The Identity Assurance programme will be managed through the Government Digital Service to ensure that an effective cross-government, federated ID solution can be developed.

17. Application Programme Interfaces**The Challenge**

Government is committed to opening up public sector monopolies and challenging old models of service delivery to drive improvement across public services. Government wants to promote a public service economy based on open ICT markets with increased participation of SMEs, the voluntary and community sector, and other diverse providers to raise standards across public service delivery.

Opening up the delivery channels of government will require government to share systems with a new range of stakeholders and agencies, whilst ensuring the security of systems and personal data.

Objectives

Government will select common standards for Application Programme Interfaces (APIs)², to create a flexible technology environment that supports a wider delivery network, enabling citizens, businesses and civil society organisations to create new services.

Key Metric

- Number of APIs published

Delivery

A cross-government review and analysis of APIs will be undertaken to establish a baseline for existing APIs and set a common API standard model.

Key Milestones	Completion Date
Complete review and analysis of existing cross-government APIs	March 2011
Common API standard model in place	July 2012
Publication of APIs list	September 2012

Accountability

The opening up of APIs is part of the government's overall approach to open ICT and user centred digital services. The work is led by Mike Bracken, Executive Director for Digital through the GDS, in the Cabinet Office.

Managing top 3 risks

Risk	Mitigating Action
Alignment with the Government Digital Strategy.	GDS will work closely with departments to ensure that Open Interface definitions and patterns for use are consistent.

² An **Application Programming Interface (API)** is a particular set of rules ('code') and specifications that software programs can follow to communicate with each other. It serves as an interface between different software programs and facilitates their interaction.

Agreement on API standards and terms of use.	Involve cross-sector agencies in the API review process to ensure that standards are agreed and consistent.
Security for transactional services.	Work closely with Identity Assurance (IDA) team and CESG to ensure that transactional services are fully protected from fraudulent use and all forms of attack.

18. Online channels for government consultation**Using ICT to Enable and Deliver Change****The Challenge**

Social media and other online tools are used increasingly by citizens around the world to effect change. It is important that government harnesses these technologies to allow citizens to have increased dialogue and involvement with the development of policies and have greater visibility of the decision-making process.

Objectives

As a first step, to facilitate a two-way dialogue with citizens, departments will ensure that a digital channel is included in all government consultations by December 2011. However in the longer term, a more comprehensive approach to developing user-centric online policy engagement and consultation is required. This will be developed as part of the single government web domain programme.

Key Metrics

- Number of government consultations
- Number of government consultations utilising a digital channel

Delivery

The GDS has established governance, is coordinating with Digital Engagement Strategy activities, and has agreed minimum standards to ensure departments have a tool for online consultation. An online element will be offered as part of all consultations and GDS will explore the development of an appropriate consultation product to support this objective. Government will now work to deliver a comprehensive approach through the single domain programme.

Key Milestone	Completion Date
All government departments will have a digital channel for online consultation	December 2011
GDS online consultation product developed	February 2012
Online consultation mechanism in place as part of single domain for government	October 2012

Accountability

Online government consultation is part of the government's wider digital strategy. The Senior Responsible Owner for this work is Mike Bracken, Executive Director for Digital in the GDS, Cabinet Office.

Managing top 3 risks

Risk	Mitigating Action
The Better Regulation Executive (BRE) may refuse to alter/amend the Code of Practice for government consultations.	Work with BRE from the outset to ensure understanding and common approach to issues in amending the Code.
Lack of business capability and capacity to support online engagement.	Cabinet Office and BRE will present a paper to the PEX(ER) Cabinet sub-committee for agreement on resourcing for online consultations, including technology, moderation and response.
Agreed engagement standards may not meet public expectations.	Ensure that standards align with current best practice and GDS strategy and approach to citizen engagement.

19. Social Media**The Challenge**

Social media enables greater dialogue between citizens, business and government, giving them a greater say in policy development. It also facilitates greater collaboration between government departments and the wider public sector. More broadly, social media may offer benefits in terms of its reach, accessibility, immediacy and ease with which content can be disseminated.

However, delivering these benefits brings a number of challenges. For government, access to social media in the work environment has been limited due to fears over security, productivity and accountability. Social media exists in many forms, and continues to develop at a rapid pace. This has led to a variety of approaches to, and rules on the use of, social media across departments.

Objectives

The GDS will demonstrate to government the potential benefits social media may bring to its operations, and ways in which perceived barriers can be overcome. It will produce guidelines that address security, productivity and accountability issues to facilitate greater and more consistent use of the internet and social media channels by departments.

In support of this, the Home Office will provide guidance for departments on accessing the internet and social media channels.

Key Metrics

- Take up by departments of the guidance on accessing the internet and social media channels
- Number of verified official government social media accounts

Delivery

The Home Office and GDS will coordinate and align activities to deliver:

Key Milestones	Completion Date
Complete verification of official Government social media accounts where appropriate	November 2011
Draft guidelines on departmental access published for consultation and used to inform project approval	December 2011
Publication of final guidelines on departmental access	March 2012

Accountability

Work on Social Media is split into two components. Departmental guidance on access to the internet and social media channels is led by Robin Pape, CIO for the Home Office. Work on the use of social media is part of the government's wider digital strategy led by Mike Bracken, Executive Director of Digital, GDS.

Managing top 3 risks

Risk	Mitigating Action
Failure to adequately join up the two aspects of this work (access to and use of social media channels).	<ul style="list-style-type: none"> • A governance structure is in place to ensure coordinated engagement and delivery. • Ongoing liaison between the Home Office and GDS.
The diversity of approaches and requirements across departments means that not all can adopt the guidelines or the guidelines become too weak.	<ul style="list-style-type: none"> • Ongoing liaison with departments, promoting the benefits of a joined up, consistent approach. • Liaison with the ICT Strategy infrastructure delivery areas (PSN, Cloud Computing, End User Device) and risk management.
Lack of willingness in departments to increase access to and use of social media channels due to fears over security, productivity, and accountability.	<ul style="list-style-type: none"> • Ongoing liaison with departments, stressing the benefits of a joined up, consistent approach. • Mandate from Cabinet Office. • Work with security and policy colleagues to tackle barriers.

Part 3 – Conclusion

42. Taken together, the over-arching and individual delivery plans set out in this document represent an ambitious roadmap by which government ICT will become more efficient and effective. Government is committed to making this work.
43. By leveraging the expertise, resources and leadership of the big delivery departments represented, and key Cabinet Office Efficiency and Reform Group executive areas on the CIO Delivery Board, government will have greater capability to meet the challenge of implementation. Government is empowering these departments to deliver solutions for the whole of government. The rationale is simple – if a solution can be developed to work in these large complex delivery areas, then it is likely to fit the needs of the smaller departments. To ensure that solutions are fit for purpose across the whole of government, and fit the needs of the smaller departments, the wider experience of CIO Council and Chief Technology Officer Council members will also be drawn upon.
44. During this time of spending restraint, government has the drive and the will to break down the siloed approach to ICT traditionally taken by departments. For too long departments have worked independently to develop the solutions and services they need. Where good work has been delivered, it is too rarely shared, and taxpayers have often paid the price for government to learn anew.
45. These are problems that can be addressed with a combination of strong governance and leadership, a whole of government approach, greater transparency and enforcement controls at appropriate intervention points. This document embodies a new doctrine of accountability alongside greater clarity on where money is spent on ICT and the value that is being achieved.

Annex

Government ICT Strategy Actions mapped to delivery areas:

Government ICT Strategy Action		Strategy Delivery Area	Completion Date	Progress
1	To improve the sharing and re-use of ICT services and solutions, departments will populate the first stage of a comprehensive cross-government ICT Asset and Services Knowledge base	Asset and Services Knowledge base	October 2011	Supplier has been appointed and is developing the Asset and Services Knowledgebase.
2	To become a single intelligent procurer of ICT, government will develop a new operating model for departments and will roll out a new procurement system	Procurement	October 2011	Government Procurement Service restructured to be leaner and more efficient. Commitment to cost reductions in excess of 25% on spend on all common goods and services including ICT from baseline of £13bn by the end of March 2013. Policy and capability improvements covering EU procurement regulations, transparency in procurement and contracting, and streamlining the procurement process using 'lean' principles.

3	To create a level playing field for the use of innovative ICT solutions, government will publish a toolkit for procurers on best practice for evaluating the use of open source solutions	Procurement	October 2011	Guidance drafted and undergoing internal consultation.
4	To assist with the deployment of agile solutions using open source technology, government will establish an Open Source Implementation Group, a System Integrator Forum and an Open Source Advisory Panel. These will aim to educate, promote and facilitate the technical and cultural change needed to increase the use of open source across government	Open Source	October 2011	All bodies established.
5	To create greater opportunities for SMEs and to reduce risk of project failure, government will publish guidance on the presumption against government ICT projects valued at over £100 million	[Being taken forward by Major Projects Authority]	October 2011	Guidance drafted.
6	To increase SME participation, government will publish a new approach to ICT procurement that will reduce timescales and cost, and will ensure that SMEs are provided with improved opportunities to directly compete for government business	Procurement	October 2011	Range of measures relating to procurement and SMEs announced by Minister for the Cabinet Office on 11 February 2011. Contracts Finder launched. Contract to develop the government ICT Asset and Services Register was awarded to a SME and published on Contracts Finder.
7	To increase accountability, government will publish both estimated and actual procurement timescales for new procurements over £10,000, and details of contracts awarded to SMEs	Procurement	October 2011	
8	To encourage greater SME participation, government will publish all new tender	Procurement	October 2011	

	documents over £10,000			
9	Government will establish an approach and capabilities for agile delivery in government which can be replicated across departments (culture, multidisciplinary teams, risk-based testing, service-oriented architecture, product management and road-mapping)	Agile	April 2012	Steering group established. Draft government terms of reference produced, and engagement with six of the biggest departments underway. Agile SMEs identified. Agile methods utilised with Universal Credit programme - "Leap 1" scope delivered successfully.
10	Government will identify and agree the common technology components that are needed to underpin agile development	Agile	April 2012	
11	Government will create a 'virtual' centre of excellence across government and the private sector which can enable fast start-up and mobilisation for agile projects	Agile	April 2013	
12	Government will identify a pilot project within each department to prove and embed the agile approach	Agile	April 2012	
13	Government will publish an ICT Capability Strategy including – as key outcomes – a blueprint for a programme to utilise and develop talent among existing civil servants, and the guiding principle that SROs will be expected to stay in post until an appropriate break in the life of an ICT programme/project to reduce the risk of failure	Capability	October 2011	First draft of strategy with IT Profession Board for comment. Work streams and plans to implement strategy being fine-tuned by IT Profession Board. The Major Projects Authority (MPA) has established a work-stream designed to address the development and effectiveness of SROs and drive the reduction in SRO turnover figures.

14	Government will create a fully operational, online Applications Store to enable the re-use of business applications and components across the public sector	Cloud Computing	April 2013	Proposals are being developed as part of the cloud strategy.
15	To ensure that appropriate data is transparent and shared rather than duplicated, government will implement engagement processes for open data standards activity and crowd-source priority areas for data standards	Open Standards for Data	October 2011	Governance and Working Group to lead delivery established. Engagement process drafted which links to the Open Standards Board. This board would provide overall governance for all open standards. Consultation with key stakeholders conducted.
16	To reduce the cost and carbon footprint of government ICT, government will set up a programme to reduce the cost of data centres across the estate, leading to a 35% reduction in costs over five years	Data Centre Consolidation	October 2011	Project launched with agreed terms of reference, governance and resources.
17	To reduce the cost of government networks, the private sector will deliver the first instantiations of Public Sector Network	Public Services Network (PSN)	April 2012	Baseline standards delivered. First PSN services operational (Hampshire and Kent exchanging services).
18	To improve the flexibility and reduce the cost of desktop solutions, government will publish a common desktop/device strategy with detailed implementation plans	End User Devices	October 2011	Established Pan-Govt Strategy Group. First draft of strategy created.
19	To examine the benefits of delivering standardised desktop services using a cloud-based model, government will develop a desktop prototype for the cloud	End User Devices	April 2012	

20	To detail how services will shift to cloud-based technologies, government will publish a Cloud Computing Strategy with implementation plans	Cloud Computing	October 2011	G-Cloud delivery board established and first draft of cloud strategy completed.
21	To enable delivery of interoperable and open ICT solutions so that they can be shared and reused, government will publish a reference architecture	Reference Architecture	April 2012	Governance, project team and project plan in place for all deliverables with detailed plan of engagement and consultation.
22	To allow for greater interoperability, openness and re-use of ICT solutions, government will establish a suite of agreed and mandatory open technical standards	Open Technical Standards	April 2012	Open standards survey conducted.
23	To recognise information as an organisational asset and to deliver improved access to clean and consistent information, government will develop an Information Strategy while maintaining necessary protection for sensitive information	Information Strategy	April 2012	Governance and Working Group to lead delivery established. Draft information strategy principles created.
24	Government will publish a Greening Government ICT strategy in line with the Government ICT Strategy and wider carbon reduction policies This will set out how government will achieve reductions in operational costs and carbon footprints, and will include the use of collaboration and mobile working technologies	Green ICT	October 2011	Governance reviewed and pan-govt working group established to deliver green ICT strategy.

25	Government will develop an appropriate and effective risk management regime for information and cyber-security risks for all major ICT projects and common infrastructure components and services	Risk Management	April 2012	Initial governance in place. Work has begun on establishing scope of risk mgmt regime.
26	To make citizens' lives simpler and easier, government will mandate 'channel shift' (move online) in selected government services	Channel Shift	October 2011	DWP digital service strategy for automated online service delivery published. JSA Online move to online applications. State Pension Online increased self-service capability.
27	To open up new, innovative services from a diverse range of providers, the Government will create cross-government standards on APIs and develop a quality assurance 'kite mark'	APIs	April 2013	Governance established. Work on reviewing existing standards and identifying exemplar standards at an advanced stage.
28	To improve government capability to exploit new and innovative ICT solutions, the Government will appoint a Director of ICT Futures	Innovation	October 2011	Director appointed.
29	To facilitate a two-way dialogue with citizens, departments will ensure that an online channel is included in all government consultations	Online Government Consultations	October 2011	Governance established and work coordinated with Digital Engagement Strategy.
30	To embed social media as a mainstream channel used routinely to engage with citizens, business and internally, the Government will develop practical guidelines on departmental access to the internet and social media channels	Social Media	April 2012	Scope, governance and joint working with Govt Digital Service Team established. Discussion paper circulated to departments and selected external organisations in September 2011.

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