

Transformational Government

Enabled by Technology

Report of the Strategy Project Team

to

the CIO Council and the Service Transformation Board

Note

This report is the background discussion document from the Strategy Project Team presented to the CIO Council and the Service Transformation Board during the preparation of Cm 6683.

It is a working, internal discussion document: it is not itself a statement of Government policy or of approved recommendations.

TRANSFORMATIONAL GOVERNMENT, ENABLED BY TECHNOLOGY

CITIZEN and BUSINESS CENTRED

SERVICES SHARED

PROFESSIONALLY DELIVERED

Executive Summary

“..This is a time to push forward, faster and on all fronts: open up the system, break down its monoliths, put the parent and pupil and patient and law-abiding citizen at the centre of it. We have made great progress. Let us learn the lessons of it not so as to rest on present achievements but to take them to a new and higher level in the future...”¹

1. Twenty First Century Government is enabled by technology – policy is inspired by it, business change is delivered by it, customer and corporate services are dependent on it, and democratic engagement is exploring it. In the developed world Governments spend approaching 1% of their GDP on technology.

2. Modern Governments with serious transformational intent see technology as a strategic asset and not just a tactical tool. Technology alone does not transform government, but government cannot transform to meet 21st Century citizen expectations without it.

3. True transformation opportunities exist in all areas – in front-line public services delivered to citizens and businesses; in regulation mechanisms that govern business and private life in Britain today; in delivery of social policy outcomes; and in the corporate services of the public sector that support efficient operations.

4. This is about using technology better to deliver core public services to have an impact on real people’s daily lives: getting better public services, such as health, education and pensions; benefiting communities by giving front line workers the tools to help break cycles of crime and deprivation; and improving the economy through better regulation and leaner Government. Technology-enabled transformation should help ensure that:

- Citizens and businesses have choice and personalisation in their interactions with government. Choice will come through new channels and more fundamentally through new opportunities for service competition.

¹ The Prime Minister’s speech to National Policy Forum 9 July 2005

- Taxpayers benefit from efficiency gains.
- Citizens, businesses and the voluntary and community sector benefit from the better regulation, reduced paperwork and lower costs from a leaner, modern, more effective public sector.
- Public servants have better tools to undertake their jobs, and the opportunity to provide better service as a result.
- Policy makers will be better able to achieve intended outcomes in practice
- Managers are able to free resources from back office to the front-line.
- Citizens feel more engaged with the processes of democratic government.

5. Achieving this will require three key transformations:

- (1) Services enabled by IT must be designed around the citizen or business, not the provider, and provided through modern, co-ordinated delivery channels. This will improve the customer experience, achieve better policy outcomes, reduce paperwork burdens and improve efficiency by reducing duplication and routine processing, leveraging delivery capacity and streamlining processes.
- (2) Government must move to a shared services culture – in the front-office, in the back-office, in information and in infrastructure – and release efficiencies by standardisation, simplification and sharing.
- (3) There must be broadening and deepening of government's professionalism in terms of the planning, delivery, management, skills and governance of IT enabled change. This will result in more successful outcomes; fewer costly delivery failures; and increased confidence by citizens and politicians in the delivery of change by the public services.

Citizen and business centred services

6. To help achieve the vision of services centred round citizens and businesses government should:

- (1) Systematically engage with citizens, business and front-line public servants to understand and then specify the transformational changes which service providers need to meet – learning from the best practice already within the public sector, from other governments and from the private sector.
- (2) Appoint “Customer Group Directors” for particular groups of the citizen/business population to lead the design of services, working to Ministerial leadership.

- (3) Create a Service Transformation Board whose role is to set overarching service design principles, promote best practice, signpost the potential from technology futures and challenge inconsistency with agreed standards
- (4) Develop modern channels for citizen and business access to services, and actively manage the shift in channels towards the most efficient and effective.

Shared services

7. A new Shared Services approach is needed to release efficiencies across the system and support delivery more focussed on customer needs. Technology now makes this far easier than ever before. Shared services provide public service organisations with the opportunity to reduce waste and inefficiency by re-using assets and sharing investments with others. Tackling this will be a major challenge as government prepares for the 2007 Comprehensive Spending Review. Particular attention should be paid to the following areas:

- (1) **Customer Service Centres**, such as those for customer contact or payment processes, where there is significant scope for rationalisation through sharing, particularly if central, local and other public sector bodies can team up.
- (2) **Human Resources, Finance and other corporate services** where improved professionalism, standard systems and processes and effectiveness of these corporate functions should achieve efficiency gains across the whole public sector and in the functions themselves, as well as enhancing the employee experience and realising indirect efficiencies from better financial, personnel, knowledge and asset management.
- (3) **Common Infrastructure**, where as government services converge around the citizen and organisations adopt commercial off-the-shelf technology solutions, the ability to share items of common infrastructure increases. Common technology will enable joined-up solutions, leverage investments and shorten the implementation timeframe of new reforms. To facilitate this, a user-led Common Infrastructure Board should be established; it should be supported from the Cabinet Office and financed through user investment; and it should set out a roadmap and timetable for the delivery of common infrastructure.
- (4) **Data Sharing**. Data sharing is integral to transforming services and reducing administrative burdens on citizens and businesses. But privacy rights and public trust must be retained. There should be a new Ministerial focus on finding and communicating a balance between maintaining the privacy of the individual and delivering more efficient, higher quality services with minimal bureaucracy.

- (5) **Information Management:** to facilitate the move towards more collaborative working on issues that involve a range of government organisations, common standards and practices for information management should be developed, with an effective range of tools to allow the most efficient use and sharing of information to all those across government that have a legitimate need to see and use it.
- (6) **Information Assurance.** Despite the difficulties of a fast moving and hostile world, underpinning IT systems must be secure and convenient for those intended to use them. The Government should further develop its risk management model to provide guidance on this, approved by the Central Sponsor for Information Assurance. And it should develop a simple, tiered architecture for its own networks to support this model in practice, with an updated application of the protective marking scheme for electronically held information. Government should also play its part to promote public confidence by leading a public/private campaign on internet safety and by a new scheme to deliver a wider availability of assured products and services.
- (7) **Identity Management.** Government should create a holistic approach to identity management, based on a suite of identity management solutions that enable the public and private sectors to manage risk and provide cost-effective services trusted by customers and stakeholders. These should rationalise electronic gateways and citizen and business record numbers. They should converge towards biometric identity cards and the National Identity Register. This work should also consider the practicality and legal issues of making wider use of the national insurance number to index citizen records as a transition path towards an identity card.
- (8) **Technology standards and architecture.** To ensure that government's technology is cost effective in terms of public and private sector best practice, the CIO Council should determine a consistent approach to standards and architecture to be taken across government. Legacy systems should be progressively refreshed: by taking advantage of open standards, commercial off-the-shelf products and asset re-use, expenditure should be reduced and capacity freed for the transformational agenda. An overall strategy for geographical information should be developed under the leadership of the Geographical Information Panel recently created by Ministers.

Professionalism

8. The UK public sector spends around £14 billion a year (1.2% of GDP) on IT enabled projects and operations. The cost of IT projects and operations should be measured, monitored and managed at the aggregate level. This will drive capacity projections; allow priorities to be set when competing for scarce capacity; and lead to greater confidence in the ability of the public and private sector to deliver results with more predictability. The costs of supporting legacy systems should be reduced to free resources for investment. The number, scale and sheer difficulty of public sector projects means that public and private sector capacity to deliver this portfolio is constantly stretched. High profile problems occur from time to time. Despite good

progress in supplier and programme management since 2000, a further step-change is needed in the professionalism with which technology enabled business change is delivered by government organisations and their suppliers.

9. So government's challenging ambitions for technology enabled change should be accompanied by a step-change in the professionalism with which it is delivered. This requires: coherent, joined up leadership and governance; portfolio management of the technology programmes; development of IT professionalism and skills; strengthening of the controls and support to ensure reliable project delivery; improvements in supplier management; and a systematic focus on innovation.

Timetable for change

10. A detailed action plan to implement the strategy should be approved by the CIO Council and the Service Transformation Board, and then published before the end of the current financial year. However the broad timing should be as follows.

11. 2005 & 2006 The current volume of change is stretching the capacity and capability of the government teams and their suppliers to deliver. Major new programmes are already in the pipeline, such as the Olympics, the Census and identity cards. So the next eighteen months should focus on:

- (1) Delivering the massive programmes of change commissioned under the last spending review and already underway, including Connecting for Health, reform of the Criminal Justice System, the Harnessing Technology strategy in education and modernisation of the Defence Information Infrastructure.
- (2) Driving the Connecting Britain – the Digital Strategy programme (of which this strategy is a part) to tackle overall issues of digital inclusion and service provision.
- (3) Mobilising the professionalism agenda – not least so that early action can help assure delivery of the current programme.
- (4) Putting in place the key roles and structures to lead the transformations needed beyond 2006.
- (5) Using the Comprehensive Spending Review to challenge existing delivery models and set clear plans and targets for improving services and realising efficiency benefits through a citizen-centric, shared services approach.
- (6) Working with government and public services at all levels – central government, devolved administrations, local government and other public services – to identify areas of common purpose and opportunities for specific shared actions.

12. Between 2007 and 2011 the priority for technology investment and business change should be transforming delivery into public services centred round citizens and businesses, and transforming support into a shared services framework. During this period it will also be important to realise the financial and service benefits of current and planned investments. The goal should be to have made the key changes, to have embedded the new cultures, and to have made the process irreversible, by 2011.

13. Beyond 2011 should be a period of further radical change in the delivery of public services, enabled by technology. The cycle of technological advancement is rapid and hard to predict. But if the broad themes of this strategy over the next five years are achieved in practice, strong foundations will be in place. In particular:

- (1) The focus on delivery and professionalism will have generated confidence in government's ability to transform itself in radical ways.
- (2) The switchover to new channels, supported by common infrastructure and the digital home will enable radical new service delivery options to be implemented.
- (3) Some of the newer technologies today will be in the mainstream by 2011 and the time will be right to roll out their widespread exploitation.
- (4) The culture of government will have changed to one which embraces – rather than shuns – sharing, which will continue to breakdown the silos perceived today.
- (5) The market and other governments will have set new citizen expectations and created new opportunities for government in the UK to exploit.

14. It is likely therefore that the planning for this era will be based upon a vision that sees citizens and businesses increasingly serving themselves – at home, in work and public places and on the move; public servants truly dependent on technology to discharge their professional roles; policy makers regarding technology as crucial to designing policy and achieving policy outcomes; and backed by a government delivery network in which the boundaries between departments, between central and local, and between public, private and voluntary continue to be less important and less visible to the citizens and businesses. This may seem very radical by today's standards. But with strong foundations laid in the next few years it should be entirely achievable.

CONTENTS

	Page
Executive Summary	2
Introduction	9
1. The Challenge and the Opportunity	11
2. Transforming Public Services: Citizen & Business Centred Services	20
2.1 <i>Vision</i>	20
2.2 <i>Achieving Transformation</i>	25
<i>Understanding Customer Needs & Behaviours</i>	25
<i>Customer Groups and Customer Group Directors</i>	26
<i>Service Transformation Board & Common Design Principles</i>	28
<i>Modern delivery channels</i>	30
3. Transforming Corporate Services: Shared Services	35
3.1 <i>Overall approach to sharing</i>	35
3.2 <i>Customer services centres</i>	36
3.3 <i>Human Resources, Finance and other corporate services</i>	37
3.4 <i>Common IT infrastructure</i>	41
3.5 <i>Data sharing and Information Management</i>	42
3.6 <i>Information Assurance</i>	44
3.7 <i>Identity Management</i>	46
3.8 <i>Technology Standards and Architecture</i>	50
4. Transforming capacity to deliver: Professionalism	52
4.1 <i>Leadership and Governance</i>	52
4.2 <i>Portfolio Management</i>	60
4.3 <i>Government IT Profession</i>	61
4.4 <i>Reliable Project Delivery</i>	63
4.5 <i>Supplier Management</i>	69
4.6 <i>Innovation</i>	73
5. Timetable for change	78
Annexes	
A. <i>Technology Futures</i>	81
B. <i>Agents and Intermediaries</i>	84
C. <i>Channel shift</i>	85
D. <i>Example CIO Scorecard</i>	90
E. <i>Service Transformation Board</i>	93
F. <i>CIO Council</i>	95
G. <i>Role of Customer Group Director</i>	96

INTRODUCTION

15. This report suggests a national strategy for Transformational Government, enabled by technology, covering the period to 2011, and then beyond. It sets a pragmatic vision for how the UK Government can deploy technology to meet its transformational reform and efficiency agendas, and sets a plan for professionally managing and delivering its projects and operations.

16. The Prime Minister commissioned the Strategy in March 2005 and the Government's intention to draw up and publish such a strategy was published in April as part of the "Connecting Britain: A Digital Strategy" programme of work.

17. The report sets out:

- (1) The basic analysis of the challenges and opportunities facing government in the development of services and the use of technology, in the context of a radical look in the Comprehensive Spending Review at the way public services are managed and delivered.
- (2) A vision for transforming public services using technology and driven by a goal of simple, swift and secure citizen-centric and business-centric services, improving both quality of service and efficiency in delivery.
- (3) A vision for transforming the corporate and supporting services of government, by a determined programme to share these services, and to standardise and simplify them, reducing costs and risk and releasing resources for value-adding customer facing front line services.
- (4) Proposals for transforming government's capability and capacity to deliver comprising: coherent, joined up leadership and governance; portfolio management of the technology programmes; development of IT professionalism and skills; strengthening of the controls and support to ensure reliable project delivery; improvements in supplier management; and a systematic focus on innovation.
- (5) An overall timetable for action to execute this strategy.

18. It is supported by a number of detailed annexes setting out supporting analysis needed to ensure that the strategy is successfully implemented.

19. The strategy is cross-government and collaborative – because the challenges facing government in the digital world are cross cutting by their nature and therefore require action across government as well as by individual departments. Similarly the strategy vision applies not only to central government but also to local government and the wider public sector (although governance and implementation structures will need to reflect their different circumstances): in particular by focusing on customers and on sharing there is substantial scope for more joining up between central and local government service delivery.

20. This strategy is about the use of technology to transform services and business operations, not about technology itself. It sets a framework for decisions on IT standards, architecture and for common infrastructure for government. Further detailed work on technology issues will be developed by the Service Design Authority on behalf of the CIO Council.

1. THE CHALLENGE AND THE OPPORTUNITY

“In our third term we will make public services safe for a generation. No going back to one-size-fits-all monolithic services... Going forward instead to services free to all, personal to each... by raising investment and driving innovation through diversity of provision and power in the hands of the patient, the parent and the citizen.”²

1.1 Twenty First Century Government

21. Twenty First Century Government is inextricably underpinned by technology – policy is inspired by it, business change is delivered by it, customer and corporate services are dependent on it, and democratic engagement is exploring it. Moreover modern governments with serious transformational intent see technology as a strategic asset and not just a tactical tool. Technology alone does not transform government, but government cannot transform to meet modern citizens’ expectations without it.

22. In some areas the UK is in the vanguard of this transformational journey. National programmes that aim to create electronic patient records in health, introduce biometric identity cards, or telematic solutions to traffic congestion and road tax, are world leading. The quality of service from some public sector call centres exceeds private sector comparators.

23. This Government is committed to delivering arguably the biggest programme of public service reform for over half a century.³ The pace of reform has never been greater. Public service leaders therefore need new ways of looking at what they do to provide better and more effective services to citizens and businesses. Strategic use and understanding of technology will allow the Government to meet its wider policy objectives:

- World class public services – front line workers need modern technology to do their job and the public need to be able to access public services using reliable modern technology.
- Improving social justice – widespread deployment of computers and broadband in schools gives children of all social backgrounds opportunities that would otherwise be limited to those on higher incomes.
- Delivering choice and personalisation in public services – customer focus and appropriate use of technology enables choice to be delivered more quickly and efficiently in areas as diverse as social housing and medical consultant referrals and enables services to be personalised to the needs of the individual.
- Modern welfare state – technology allows faster and more personalised communication of job and training opportunities, helping people find work and improving the efficiency of the labour market; benefits administration

² The Prime Minister, Labour Party Manifesto 2005

³ In the 2001 Queen’s Speech debate, the Prime Minister said “we are proceeding with an agenda of public service reform and allow no dogma or vested interest to stand in its way.”

and payment is transformed by modern technology allowing direct payments to bank accounts and speeding up claims and decisions.

- Making Britain safer – biometric, database and facial recognition technology make it harder for suspects to slip through the net, secure borders and help people prove and protect their identity. These are vital tools of modern crime fighting.
- Increasing prosperity – reducing the regulatory burden on business by making it easier for them to understand and comply with regulations online and making government itself more efficient.
- Increased public sector productivity – reducing transactional costs and overheads and freeing more resources for the front line.

24. In addition technology, and use of it by governments and companies, is advancing all the time. The Prime Minister wants to ensure that the UK's public services keep up with the best of global government and the private sector in delivering good, efficient services and that a strategic approach prevents a service delivery gap opening up.

25. So technology has a role to play in helping the public services address the strategic challenges of the twenty first century:

- Increasing delivery expectations by citizens and businesses
- Funding pressures to increase the efficiency of operations and ensure that resources are used effectively to deliver front-line services
- Implementing reform within the public services
- External pressures of security, globalisation and environment issues

1.2 Increasing customer expectations

26. The increasing delivery expectations by citizens and businesses deserve a special mention. The Government's 2005 Election Manifesto increased the rate of change in public service delivery, driven by the rising service quality expectations of citizens and businesses.

27. Canada has successfully been using technology to transform government services for many years. In the 2005 Accenture survey it was classed as the world leader in this field.⁴ Since 1998 Canada has tracked citizen insights into the services received from all levels of government. In particular they have found that service quality shapes citizens' confidence in their governments more generally, and citizens have increasingly high expectations of government, often higher than the private sector.⁵

⁴ Accenture, 2005. 'Leadership in Customer Service: New Expectations, New Experiences' (Accenture Publications)

⁵ Canadian Government On-line Initiative, 2003. 'Connecting with Canadians: Pursuing Service Transformation Final Report of the Government On-Line Advisory Panel.'
http://www.gol-ged.gc.ca/pnl-grp/reports/final/final00_e.asp

28. Customer expectations are being influenced by:

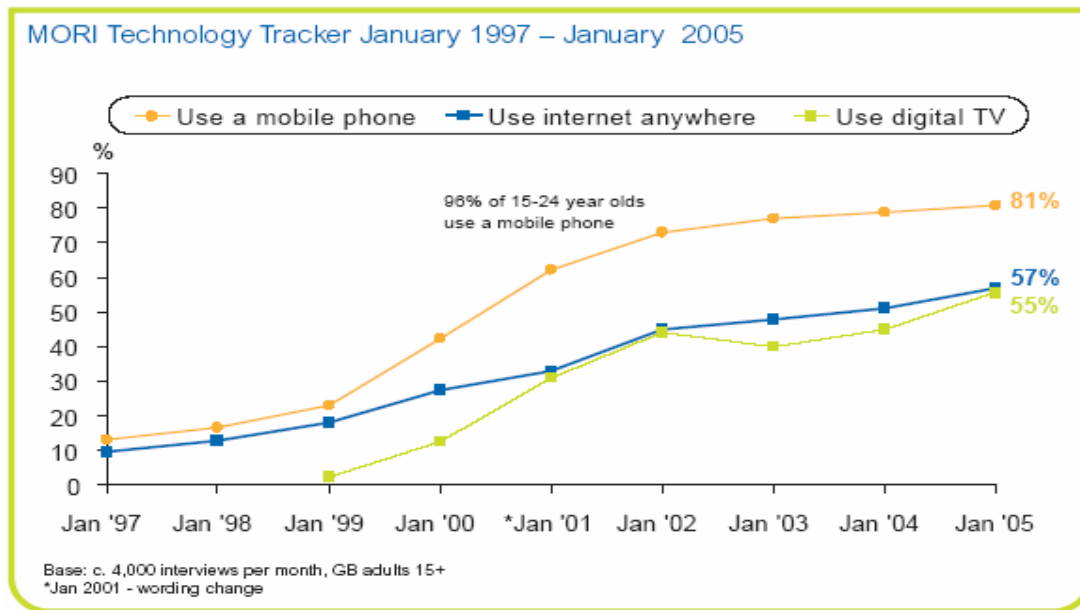
- (1) Service Presentation Work for the Office of Public Service Reform and Departments show that the factors that contribute to a person's satisfaction with a service are mainly related to the 'process envelope' within which the service is presented – delivery, timeliness, information provided about the service booking– and appointment, communicating, 'getting seen' etc. For instance in the NHS, electronic booking and patient records will transform the process experience of a patient being referred to a consultant.
- (2) Customers' experience of equivalent services: citizens and businesses are becoming accustomed to simple, swift and secure services, delivered in a manner and at a time and place to suit them: for instance 24 hour telephone banking and airline booking and ticketing. Businesses are driven by competition to provide customer-centric operations and they expect from government to minimise the cost of compliance, improve productivity and to facilitate international competitiveness. Evidence also suggests that the public now expects more joined up services and their preferred channels are increasingly telephone and internet.⁶ Public service workers have similar expectations.
- (3) Public access to knowledge: the internet is radically changing the way people find and use knowledge in general. Given the tools, people begin to want to help look after themselves. People are equipping themselves with information from the web before they consume services. People will use the internet to look up information on illness before visiting the doctor – early academic research shows this delivers health benefits and people who can't get on-line ask someone else to do it for them⁷. Pupils are now at the stage where they can find more information than given to them by their teachers, changing their expectation of the relationship between service providers and their customers. The Technology Futures paper (Annex A) expands upon this point.
- (4) Data privacy and security: the increasing power and ubiquity of technology creates new responsibilities for the public sector as guardians of data about citizens and businesses. The public has a legitimate expectation that government will protect personal data and services from digital attack and unlawful use and ensure implementation is efficient as well as effective. Public service providers must retain the trust, confidence and engagement of the public on information privacy and data security. Individual rights and concerns need to be treated with the same seriousness as the desire to deliver better, more efficient public services.

⁶ Lansdowne Market Research, 2005. 'Government Services 2005, Overview Report.' (Lansdowne Market Research)

⁷ Ziebland, Sue; Alison Chapple, Carol Dumelow, Julie Evans, Suman Prinjha, Linda Rozmovits. 2004. 'How the internet affects patients' experience of cancer: a qualitative study.' British Medical Journal pp. 328:564 (March)

29. It is important also to factor in the known issue of the “perception gap” between official figures and public beliefs about public service delivery. The Office of Public Service Reform is conducting further research into this.

30. Moreover citizen and business expectations are influenced by the technology available to them. Communications technology (especially the telephone) is now largely ubiquitous, affordable, familiar to the average customer and robustly tested by the private sector for service delivery.



31. For digital channels:

- Around 55% of households have the internet at home: in 1997 less than 10% of the UK population had accessed the internet⁸.
- By late 2005 there were more households with broadband than dial-up internet connections⁹. 30% of all UK households now have broadband.
- More than 60% of UK households now receive digital television¹⁰.
- 55% of the UK's internet users regularly buying goods, tickets, or services on-line.¹¹ UK internet users are second only to those in the USA in their propensity to transact on-line.

⁸ Office of National Statistics. 2005. 'Social Trends,' <http://www.statistics.gov.uk/socialtrends35/>

⁹ Ofcom. 2005. 'Communications Market, 2005.' www.ofcom.org.uk/research/cm/cm05/

¹⁰ *ibid.*

¹¹ Office of National Statistics. 2005. 'Social Trends,' <http://www.statistics.gov.uk/socialtrends35/>

- 55% of the UK's internet users used on-line banking in 2004. This compares with 33% in 2001.¹² (In the USA fifty-three million people, or 44% of internet users and one-quarter of all adults, now say they use on-line banking.¹³)

32. The digital divide¹⁴ no longer exists in the use of the telephone. For internet use, which is most clearly correlated to age and social class^{15 16}, the digital divide still exists but is gradually shrinking. Indeed 27% of internet non-users are 'abstainers' who choose not to use the internet due to lack of interest. The growth in internet use is expected to mirror that of mobile phone use, with a ten year delay.¹⁷

33. The impetus is now on public services to respond to these trends. Citizens' perceptions of how government should conduct electronic services are shifting rapidly: just under 90% thought that the government should make it as easy as possible for the public to access services; more people in the UK feel this way than people in other countries.¹⁸

1.3 Government expenditure on Information Technology

34. There is no standard way of tracking IT spend across government as a whole, or of assessing its impact. The Spending Review process is outcome rather than input based, and so departmental IT spending is not separately tracked. However external estimates suggest that in the UK in 2004 around £14 billion was spent by government on IT. An average of 25% of IT spend is on new projects. The rest is devoted to maintaining legacy systems.¹⁹

35. As the chart (Figure 1) shows, UK spending on public sector IT amounts to about 1.2 % of GDP and, compared with other countries, is in the upper part of the range. It has also risen in real terms over the last decade.

¹² 2004 data: Todos Data Systems, <http://www.finextra.com/fullstory.asp?id=12909>; 2001 data: NetValue, <http://www.clickz.com/stats/sectors/finance/article.php/878751>

¹³ Pew Research, 2005. 'On-line Banking 2005: A Pew Internet Project Data Memo.' http://www.pewinternet.org/PPF/r/149/report_display.asp

¹⁴ The Social Exclusion Unit in the Office of the Deputy Prime Minister is producing a separate document on tackling the digital divide.

¹⁵ Internet use by occupation: self-employed 54%; manager 80%; white collar 64%; manual worker 40%; housewife 25%; unemployed 38%; retired 12%: European Commission, 2005. 'eInclusion Revisited : The Local Dimension of the Information Society' (European Commission Publications)

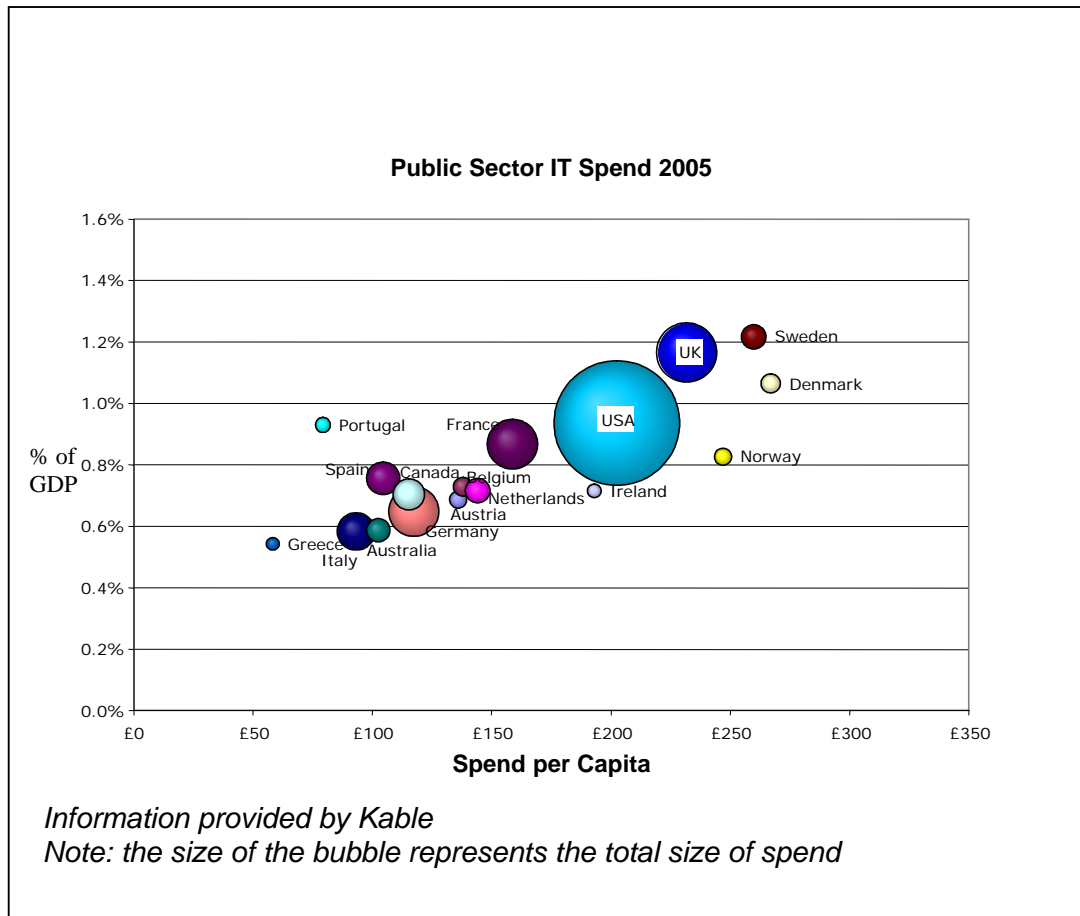
¹⁶ The proportion of over 55s using the internet in the UK is 17%, up 5 percentage points from 2002. This compares with 69% of 15-24yr olds and 58% of 25-39 year olds: *ibid*.

¹⁷ Ofcom prediction, March 2005:

http://www.ofcom.org.uk/consult/condocs/telecoms_review1/telecoms_review/annexf/?a=87
101

¹⁸ Accenture, 2005. 'Leadership in Customer Service: New Expectations, New Experiences,' (Accenture Publications)

¹⁹ Data supplied by Kable Associates, <http://www.kablenet.com>



36. Yet, measured by various independent e-service assessments, the UK has been falling slowly in the international rankings over recent years. For example, a recent study in early 2005 ranked the UK government tenth in the world in terms of e-readiness.²⁰

37. This may be partly because, in the UK, recent investment has corrected previous under-investment in technology: the Wanless report (2000), for example, identified 30 years of under-investment in technology in the health service.²¹ The 2002 Spending Review injected some £6 billion into government spend on IT, largely rolled forward in the 2004 Spending Review’.

38. Nevertheless questions remain about whether government in the UK is making its considerable investment in IT in ways which maximise the outcomes to citizens, businesses and policy delivery that technology should be achieving. In particular:

²⁰ Accenture, 2005. ‘Leadership in Customer Service: New Expectations, New Experiences’ (Accenture Publications) p. 94

²¹ Wanless, Derek, 2000. ‘Securing our Future Health: Taking a Long-Term View.’ Interim Report p.165

- The proportion of spending on legacy systems and infrastructure (around 75%) is high by comparison with best practice in major enterprises (where it is around 60-65%).
- Supporting service delivery models based round organisations rather than customers leads to duplication of IT investment and processing
- Supporting 1300 different finance and human resources services requires much greater IT investment and operational spending than supporting a much small number of shared services delivering the same outputs.

39. Given the current public expenditure climate, and the ending of many major programmes before the 2007 Spending Review, the current position is likely to represent a real terms peak in public sector IT spend. At the same time new policies will create upward pressure on technology expenditure as a proportion of total expenditure – electronic patient records, transactional efficiency savings, pay-as-you-drive motoring, better regulation, and so on.

40. Therefore this strategy needs to identify measures to improve the effectiveness and prioritisation of IT spending in line with the overall objectives of efficiency and reform in the public services.

1.4 Technology as an enabler of transformation

41. There is widespread evidence that service processes are still duplicative and inefficient. For example, dealing with bereavement can require up to 41 contacts with public services.²² Each year the public service sends an estimated 700 million pages of paper to the public and businesses.²³ In 2003 the National Audit Office found that a 5% saving in the processing costs of two government application forms (driving licence and Attendance Allowance) would generate £3.3 million in revenue²⁴.

42. The Comprehensive Spending Review 2007 will take a radical look at the way public service are managed and delivered. In this technology should be a primary mechanism for simultaneously transforming services and reducing costs. Effective use of IT is a major contributor to productivity growth²⁵; however achieving that growth also requires change to organisation and business models rather than simply applying technology to existing methods²⁶.

²² Cabinet Office/Regulatory Impact Unit. 2005. 'Making a Difference: Bereavement.' (Cabinet Office)

²³ <http://www.wastefile.com>

²⁴ National Audit Office 2003. Difficult Forms; How Government Agencies Interact with Citizens

²⁵ Jorgenson, Dale W. 2001 "Information Technology and the U.S. Economy" American Economic Review, 91(1), pp. 1-32.

²⁶ Brynjolfsson, Erik and Hitt, Lorin M. 2000. 'Beyond Computation: Information Technology, Organizational Transformation and Business Performance.' Journal of Economic Perspectives, 14(4), pp. 23-48.

43. For instance British Airways' response to the September 11 crisis and the threat of low cost airlines was to instigate a wide ranging 'Future Size and Shape' project. Press coverage focused on the reduction of staff numbers by 13,000 – but to achieve this technology was used innovatively to re-engineer the business models. Both customer-facing and internal processes were radically changed to promote more cost-effective self-service. After the first two years of the project, 30% of all check-ins were self-service and the entire 13,000 cabin and flight crew were able to check their rosters and pay details on-line, driving down processing costs²⁷.

1.5 The challenges to come

44. Most government service delivery did not respond sufficiently promptly or sufficiently radically to the shift in society and commerce brought about by the advent of the internet: by contrast in the same period policies led by DTI to encourage industry to adopt the internet were regarded as an international model and substantially ahead of their time; and the BBC 'got' the internet early and it now has the world's most admired and respected website.

45. The cycle of technological change and adoption is rapid and hard to predict. Nonetheless the 'Technology Futures' Annex sets out some developments which seem to be important for the next five to ten years. Seen now, three key changes enabled by technology developments seem particularly important:

- (1) People on the move having access to video-rich media video and internet services as easily as they send a text message today – from a virtuous circle of processor power, memory, screen capability, battery technology and mobile bandwidth.
- (2) People at home having the capability to send and receive video-based information much as they do text email today – from a combination of extremely high bandwidth, storage and processor power.
- (3) The digital divide at a basic level closing to the point where public service providers are confident to switch many of their services over to digital channels, as the Department for Work and Pensions has done already with pensioners on the phone and paying benefits electronically instead of through order books.

46. So this strategy does not simply aim to help public services catch up with what technology can enable now. It also aims to ensure that government does not 'miss' future changes enabled by technology developments in the future, by building into government a systemic capacity to exploit technology as an enabler of change. This means ensuring that:

- (1) Government and public service leaders stay in touch with technology developments and feed that experience promptly into evolution of their delivery models.

²⁷ Interview with Paul Coby, British Airways chief information officer, The Financial Times, April 2004

- (2) Service design and development are based on customer focus and research, and so detecting innovations in other sectors that customers are finding valuable.
- (3) Strong leadership and robust governance are in place to implement the change that new technologies will enable and to realise the benefits from them.

2. TRANSFORMING PUBLIC SERVICES: CITIZEN AND BUSINESS CENTRED SERVICES

47. This section sets out:

- (1) A vision for transforming public services, and how this would look to customers, to front line staff and to policy makers.
- (2) Common strategic action in four areas needed across government to drive transformation and meet the challenge of the Comprehensive Spending Review: engaging with customers, clustering services around customer groups, setting core service design principles and managing channel shift.

2.1 A vision for transforming public services

48. All successful businesses put the customer at the heart of their operations. So do successful governments. The breadth and complexity of public services makes customer-focus hard to achieve; yet that very breadth and complexity should not simply be forced upon citizens and businesses to deal with themselves.

49. The vision is therefore to transform public services, with the citizen and the business at the heart of the system and to make services simple, swift and secure. This will deliver better public services, more efficiently, to more people. Combined with the right policy, people and process, technology is a powerful agent of change. Strategically and professionally deployed, it will bring benefits:

- Citizens and businesses have choice and personalisation in their interactions with government. Choice will come through new channels and more fundamentally through new opportunities for service competition.
- Taxpayers benefit from efficiency gains.
- Citizens, businesses and the voluntary and community sector benefit from the better regulation, reduced paperwork and lower costs from a leaner, modern, more effective public sector.
- Public servants have better tools to undertake their jobs, and the opportunity to provide better service as a result.
- Policy makers will be better able to achieve intended outcomes in practice.
- Managers are able to free resources from back office to the front-line.
- Citizens feel more engaged with the processes of democratic government.

50. The vision must apply throughout government's interactions with citizens and businesses. This includes:

- The processing of administrative transactions such as tax, benefits and licences.
- The support to those providing front line public service delivery.
- The delivery of policy outcomes through interventions by government agencies.

Processing Administration Transactions

Vision

Citizens can access high quality reliable public services simply, swiftly and securely:

- Government information and services are easily accessible. Services and information are presented in a way that makes sense to people.
- Services and information are personalised to customer needs, using technology to adapt the service automatically based on their needs, circumstances and behaviours.
- Citizens can choose how they communicate with Government. Access is available through the most appropriate channels: face to face, telephone, e-mail, internet or via an agent.
- Personal information is private, secure and effectively maintained.
- Citizens can get information from and about government that they can trust – it is correct, comprehensive and current.
- They have the opportunity to use electronic channels to contribute to government thinking and to monitor it.
- Business can transact efficiently with government, improving UK productivity:
- Access to government information and services is simple and accessible.
- The burden on business is minimised by reducing multiple requests for data through records management between public sector organisations.
- E-business technologies are leveraged to improve communications and transactions.
- Information is secure.

51. All transactional services between citizens or business and Government should be simple, swift and secure. All three matter – too complex and citizens will struggle; too slow and they will not bother; insecure and they will lose confidence.

52. Examples of this sort of approach in practice can be seen:

- Directgov, the Government's flagship digital service, is organised into franchises around the citizen or service, and not the provider organisation. For each area so far covered it helps the citizen find out about information of relevance.
- 70% of business incorporations and around 40% of annual returns to Companies House are now electronic.
- The Businesslink.gov website brings together the offerings of over 40 government bodies into packages corresponding to *business* processes; within a year of launch the site was seeing four times the use of its predecessor.

- 1.63 million Self Assessment tax returns (17%) were submitted electronically in 2004-05 (reporting the 2003-04 tax year).
- Transport: 50% of driving theory test bookings and 36% of driving practical test bookings are now made online; 79% of new vehicle registrations are electronic.
- Education: 85% of university applicants now use electronic application services.
- Health services: 'NHS Direct Online' receives over 1 million visits each month, and the phone line gets 650,000 calls a month
- Courts: over 60,000 small claims have been issued through 'Money Claims Online'.
- Employment services: Jobcentreplus Worktrain and Internet Job Bank services attract over 800,000 visitors a week.

Support to front line public service delivery

Vision

Public sector employees can access the information they need to do their jobs effectively to provide simple, safe and secure services to citizens.

- People are able to do their tasks as easily, efficiently and effectively as their counterparts in the best of the private and public sectors:
- They use information and technology continually to improve the quality and efficiency of their work.
- They collaborate and share information where it is in the public interest.
- Front line workers are empowered to deliver better services to their customers:
- Access to 'whole customer' information enables more effective service.
- Access in 'real time' enables the front line worker to give a quick, correct answer, and save double handling

53. Much of the public services delivered to citizens and business are not merely transactional in nature but require interaction with, or dependency upon, around 6 million public servants – doctors, teachers, police, pensions advisors and many others.

54. The Government has invested £4.5 billion on technology to modernise services – in police, schools and the health service – to enhance front line delivery. A key part of this strategy is to reduce the time spent by professionals in accessing and handling information, in order to free up valuable time to handle customer services, particularly more complex cases. This approach will also improve quality of services as it reduces duplication of data and errors.

55. Examples of this approach can be seen in:

- The Pensions Transformation Programme, where first-line customer agent teams will handle both State Pension and Pension Credit, allowing them to register claims for both in the same customer contact and usually to tell the customer the amount of their entitlement at the end of their call.
- The Defence Information Infrastructure programme, which will develop IT infrastructure across the whole of the Ministry of Defence, including the Armed Forces, and will be used by 300,000 users in 2,000 locations around the world.
- The Exchanging Hearing Information By Internet Technology (XHIBIT) system, which allows participants in court hearings to be informed in real time about important information such as postponements, so police witnesses can use their time more efficiently.

Delivering policy outcomes

Vision

- Policy is centred on the citizen at the heart of affairs e.g. the prisoner, the domestic violence victim, the child suffering abuse.
- Policy making is evidence based through access to relevant data sets.
- Policy makers are able to share information while making policy and easily and efficiently between document management systems.
- Individual cases are profiled to focus efforts to break the cycle or otherwise achieve the policy objective.
- Individual cases are managed in one place according to the profiled actions.
- The government, voluntary and private sector organisations join up electronically around the citizen profile to deliver the actions in a joined up way.
- The system of profiling and management receives feedback and best practice for continuous improvement.
- Summary information is provided to the public and political representatives to measure outcomes in practice.
- Technology underpins each area to ensure that the complete system operates in a joined-up fashion.

56. Perhaps the most far-reaching, yet under-exploited, potential for technology is to support the achievement of practical policy outcomes in complex situations. Being citizen and business centred means here joining up solutions across different government organisations to deliver policy outcomes which benefit us individually and collectively.

57. The National Offender Management Service has built an excellent system for offender profiling and planning. This, for example, profiles the individual's needs in the areas of drug dependency, mental health, financial, homelessness, family and employment support. This has led to demands for more extensive internet access for linkage to other agencies' systems such as housing, and social services.

58. The Crown Prosecution Service has demonstrated the potential of transformation through technology with the implementation of its Case Management System. This has been online since 2003 and has supported the review and prosecution of over 3 million criminal cases across England and Wales. In 2005 the scope was extended to include the informational needs of joint Crown Prosecution Service-Police Witness Care Units, providing front line support to victims and witnesses.

59. The Crown Prosecution Service is working with Criminal Justice Information Technology Group to maximise the benefits of the Criminal Justice Exchange, which will create a genuine 'joined up' environment, seeing data sharing between agencies in the criminal justice system and massively reducing re-keying of data.

60. There are other examples where technology has the potential to put the citizen at the heart of the systems with a holistic view of their circumstances by assembling disparate case work information. Domestic violence cases, persistent anti-social behaviour cases and children at risk are some examples where the pernicious nature of the problems requires a new approach around the citizen at the centre of the case.

61. In summary, the objective is to increase the systematic achievement of the policy objective through the application of technology to each phase of the policy process: evidence based policy making; systematic profiling; progress management; joined-up action plans; testing and feedback; and measurement and reporting.

2.2 Achieving public service transformation

62. Therefore services need to be designed around citizens and businesses to ensure effectiveness of delivery to the customer, to achieve policy goals, and to release savings by reducing duplication and streamlining processes (customer satisfaction, though important, is not the only goal). The key actions required are (a) to increase understanding of customer needs and behaviours; (b) to define customer groups and appoint directors to lead the overall development of services to those groups; (c) to create a Service Transformation Board to define and enforce common service design principles; and (d) to develop modern channels and manage the migration to them. The following paragraphs expand on these.

(a) Systematically engage with citizens, business and front-line public servants to understand and then specify the transformational changes which service providers need to meet – learning from the best practice already within the public sector, from other governments and from the private sector.

63. To make public services more citizen centric there must be opportunities for citizens themselves to express opinions and have them acted upon (voice) as well as to select outcomes which are appropriate to them (choice)²⁸. In a diverse society robust choice and voice mechanisms can help policy makers and public service managers rise to the challenge of becoming citizen centric and business centric.

64. Commercial businesses use customer feedback to transform their products and services – or lose in the marketplace. Companies such as British Airways, Amazon, John Lewis and Google can all be seen to combine continuous testing, feedback and improvement cycles into their daily practices and invest in listening, learning and modifying the customer experience. Improving the customer experience is not an end in itself; it is a way these companies optimise their service design to achieve more consistently their desired outcomes – in these cases increased revenue and customer loyalty.

65. For public services the Prime Minister has set out clear principles of reform:

- National standards to ensure that people have the right to high quality services wherever they live.
- Devolution to give local leaders the means to deliver these standards to local people.
- More flexibility in service provision in light of people's rising expectations;
- Greater customer choice.

66. So service standards based on what the customer wants and needs are thus crucial to technology-enabled public service transformation. Yet there is also no regular and customer-focused engagement with a representative sample of UK citizens to govern and shape better services across the board.

²⁸ See for instance the recent report on Choice, Voice and Public Services from the House of Commons Public Administration Select Committee and the Government's response.

67. By contrast the Canadian Government have evolved a co-ordinated programme of customer research, of which the centrepiece is a 10,000 citizen internet panel (supplemented by other methods to reach the digitally excluded). They have put in place a similar model for engagement with business. This engagement is a proxy for market pressure and serves to stimulate and regulate transformational change.

68. Government in the UK needs a similar process of customer engagement – for citizens and for businesses. The aim would be to understand what expectations citizens and businesses have, how these change over time, what they see working and what they see is not, where they feel more priority attention is required, to act as a sounding board for ideas, and to provide continuous feedback on measurable satisfaction levels. The precise details of this should be worked out in due course following detailed consultation with the Canadian team, leading UK public service providers and others with relevant customer engagement experience.

69. It will also be important to capture systematically feedback from other parts of government and from organisations in the voluntary and community sector.

70. Therefore:

- (1) The Service Transformation Board should action a public survey as outlined above.
- (2) Public service delivery organisations should clearly drive their service designs from customer research.
- (3) Public service delivery organisation should share their customer research plans and results through the Service Design Authority.

(b) Appoint “Customer Group Directors” for particular groups of the citizen/business population to lead the design of services, working to Ministerial leadership.

71. A key element of this strategy is presenting government information and services from a customer’s point of view. Yet central government services are predominantly delivered from within departmental silos, and presented as such to customers. Customers seeking to receive services are repeatedly asked for the same information by different organisations – or, in the worst cases, by different parts of the same organisation. The proliferation of government databases, and lack of enforced data standards or integration, renders a ‘whole customer view’ difficult to obtain.

72. Besides being bad for customers, this fragmentation has negative consequences for public service providers and their staff. The lack of a whole customer view inhibits targeting of public services and bundling communications to promote services. It delays decision-making, as frontline workers must refer elsewhere for further information. The duplication of resources and infrastructure represents a costly burden to the taxpayer. Some Local Authorities have addressed these issues by investment in Customer Relationship Management applications and processes covering all their services, but problems still remain.

73. Even 'reluctant customers', such as prisoners, are less well served by a fragmented approach from government; for example when prisoners are released without the necessary rehabilitative programmes, based on an inadequate understanding of their social care requirements. The need to group around the customer led to the creation of the National Offender Management Service.

74. However citizen centric government does not mean 'one size fits all'. For instance in Directgov:

- (1) Customer groupings are deliberately not mutually exclusive. Some groupings are based on 'segments' (such as Young People) but others are based on 'roles' (such as Parents and Motorists), which may be the same individuals dealing with different issues in their lives.
- (2) Customer groupings have not meant centralisation. The leadership on individual 'franchises' rests with a lead Department, which co-ordinates input from other Departments dealing with that customer group. The central team is kept deliberately small.
- (3) While by design the customer need not be aware on entering the site which organisation is responsible for the delivery of the service (the landing point is direct.gov.uk/subject) there remain clear accountabilities for subsequent delivery and fulfilment.

75. The redesign of the customer-facing aspects of HM Revenue and Customs shows similar characteristics. Customers are grouped mainly by size ("individuals", "small businesses", "large companies") rather than by the type of tax that they pay; and an additional group of "frontiers" has been created to focus on services to those entering or leaving the country, even though most are also taxpayers in one of the other groups. Similarly the Driver, Vehicle and Operator Group of the Department for Transport are planning to present their services as joined-up, one-stop offers to "individual motorists" and "commercial customers" rather than as separate products such as "vehicle testing" and "driver licensing".

76. This experience gives a basis for the practical creation of citizen centric government. Information and services should be presented and delivered to customers clustered round 'customer groups' of segments and roles relevant to citizens' ordinary lives and types of business. This need not involve structural change in delivery organisations (it has not done so for Directgov or the Department for Transport) but would drive joining-up both of the offer to the citizen or business and of the underlying data relevant to those customers in those roles.

77. Further customer research would be needed to identify definitively the primary customer groupings which are relevant to ordinary citizens and businesses and which are based on customer behaviour and context, rather than legislative or organisational boundaries. However it is expected that the eventual groups would be based around a combination of citizen segments (for example "older people", "young people"), citizen roles (for example "parents"), business types (for example "farmers") and groups of people meaningful in terms of policy outcome (for example "offenders"). In advance of that analysis it is likely that around 10 customer groups

would strike the right balance between joining up different services of government and differentiating the customer offer to reflect the characteristics of the customer group.

78. The segmentation needed to define the key customer groups for overall customer focus does not imply that these groups are themselves homogeneous. Within each group there would need to be further sub-segmentation to understand the needs and behaviours of different individuals within the group, so that a full service design model and its integration channel strategy can be developed.

79. To lead the transformation of groups of services to customers, especially for those which cut across organisational boundaries, the Government should appoint Customer Group Directors, each reporting to one Minister responsible for that customer group. Key responsibilities of a Customer Group Director should be to sponsor customer insight and research into the needs of that customer group; to lead the design of services including overall channel planning, joining-up of presentation and delivery, branding and communication, and service improvements; to track and communicate performance against customer related targets; and to represent the interests of their customers as necessary in existing inter-departmental governance and in the governance of this strategy. A more detailed description of the role suggested is in Annex G.

80. To start the process off, and in parallel with the further research, the Government should initially appoint Directors for one citizen group (e.g. older people), one policy group (e.g. offender management), and one business group (e.g. farmers). These initial appointees should help develop the role, including its own accountability and any necessary adjustments to the accountabilities of others, its relationship with local government, and the resources and governance necessary. Other appointments should follow in due course once these new roles have been thus defined in more detail and the first phase of the research work is complete. Early candidates should include Directors for parents and for small businesses.

81. These appointments should normally be people already leading a major service line, and each Customer Group Director would create a "Customer Group Team" from the key public and voluntary sector bodies which serve the customer group and from the relevant marketing, research and communication groups.

(c) Create a Service Transformation Board whose role is to set overarching service design principles, promote best practice, signpost the potential from technology futures and challenge inconsistency with agreed standards

82. In order to steer and co-ordinate the work of Customer Group Directors and others, the Government should set up a Service Transformation Board of officials from the wider public sector who run major services and have operational delivery responsibility. The Cabinet Office should provide the secretariat and design authority for the Board under a Service Transformation Director.

83. The role of this board should be to set overall operational strategy and its policy framework and focus on the practical mechanisms to deliver service transformation. In particular, it should set overarching service design principles; promote best practice; signpost the potential of technology; identify common design and development needs; and challenge inconsistency or deviation from agreed standards or best practice.

84. Clear design principles are needed to ensure coherent, citizen-centric and business-centric, efficient public services. These would be the standard basis on which all service should be design and against which all projects should be assessed. The core design principles should be:

- (1) Choice and Personalisation Technology and existing data on the customer should allow the service to be tailored to the needs of the individual seeking or receiving it, and should allow the customer to be told of the choices that are actually available in his or her circumstances and location.
- (2) Self Service Customers should normally be able to access transactional services directly and complete a transaction without the intervention of public sector staff. Customers, or authorised intermediaries such as their adult children, should be able to have 24/7 access to government services and the automated processing of requests. Intervention by front line staff should be focused only on those who need additional help or where risk profiling suggests that it is needed. Customers and their intermediaries should be able to view their own data on-line and check on the progress of their case, even in instances where they cannot themselves progress the transaction.
- (3) Whole Customer View At least within the customer group structure already described, it should be possible for authorised front line staff – and customers themselves – to see all relevant data of a customer’s interaction with public services. The benefits to the customer are better targeting of services or information and faster and more efficient interactions. The benefits to government are a reduction in administrative effort through eliminating duplicate processing (for example of address changes) and the ability to make interventions in the light of all the customer’s circumstances.
- (4) One Stop Service There should be clearly signposted access points for the service, and customers should be able to address all aspects of the issue that they face through one point. Normally the first point of contact – whether website, call centre agent, face to face front line worker – should have the knowledge, tools and capabilities required to address their needs.²⁹

²⁹ According to a recent survey by Accenture one-third (34%) of the respondents said that the most important aspect of a satisfying customer service experience is the ability to obtain assistance from a company without being forwarded to multiple representatives.

- (5) “Real Time” government Normally transactions should be completed during a single customer contact (fulfilment might be deferred, but in such cases the customer should have a high confidence that fulfilment will be accurate and timely). This means ensuring that the decision taking is automated wherever possible and, where not, ensuring that front line staff have the information they need to take decisions during the customer contact itself. It means that back-office clerical processing of factual data should be streamlined or eliminated so that quick, accurate decisions can be made at the time of contact. It means that services should employ effective risk profiling and risk management so that completion is only deferred in cases of unusual risk. It also means that information from other parts of government (or outside) needs to be checkable in real time – as the Department for Transport have arranged with the Motor Insurers Bureau to allow the renewal of car tax to be checked, at the time, against the database of current motor insurance policies.
- (6) Identity management Customers should experience a common, consistent process to establishing their identity, including sign-on to on-line services. Services should use a common set of standards for identification, and manage risk within a common risk management framework consistent with an evolutionary path towards identity cards. New customer identifiers should be avoided wherever possible.
- (7) Agents and intermediaries Adult children should be able to help their elderly parents access on-line telephone services. The principle should be extended to other appropriate third parties. To facilitate this, standard voluntary sector protocols for third party access to systems should be established reducing the need to negotiate from scratch for each service or organisation. Third parties should include social workers, local authorities, Citizens’ Advice Bureau, charities, etc. The use of intermediaries and agents is discussed further in Annex B.

85. The Service Transformation Board, supported by the Service Design Authority, should adopt, refine and extend these principles; and the Service Design Authority should assess service delivery plans against these criteria.

(d) Develop modern channels for citizen and business access to services, and actively manage the shift in channels towards the most efficient and effective.

86. Customers expect simple access to services, with an appropriate, efficient choice of entry points. There are three basic principles for channel interactions:

- Choice: providing the appropriate range of channel alternatives and allowing citizens a choice from them in and when they contact and are contacted by public service providers.
- Consistency: a consistent presentation of brand and brand values.

- Continuity: whichever channel the citizen chooses, the handovers between channels should be seamless and there should be a common, up to date view of the customer's data and transactions.

87. That does not mean that public services should simply leave it to their customers to choose the channel to use. It is true that government has a series of universal service obligations, and must deliver these in a context restricted by legislation, public opinion and political pressures; but it also has an obligation to minimise the costs of its services to the taxpayer and to focus its spending on areas that add value for customers and policy outcomes.

88. There are already some examples of channel shift even in areas where customers might have been expected to be resistant to adopting new technology:

- The Department for Work and Pensions Payment Modernisation Programme means that 96% of customers now receive their benefits paid directly into their bank account.
- The congestion charge only allows paper based fulfilment by exception.

89. So the real challenge is how government can migrate users to the lowest cost channel consistent with meeting its policy objectives, with acceptable cost and with carrying its stakeholders with it; and how at an appropriate time legacy channels can be closed. The solution and its timing will be different depending on the behaviours and needs of different customer groups. For example, Lord Carter is carrying out a review for HM Revenue and Customs on the extent to which businesses should be expected to deal through electronic channels, following the existing programme to introduce electronic submission of Employers' PAYE returns. A fuller discussion of channel shift and incentivisation is in Annex C.

90. Over the next decade, the principal preferred channels for the delivery of information and transactional services should be the telephone, internet and mobile channels – as well as the increasingly important channels within the digital home. Using customer insight, government should drive take-up of the best new digital channels and exploit mobile technologies; and it should innovate its services to take swift advantage of new technologies as they emerge. To support this:

- (1) The Service Design Authority should collate experience within and outside government into the effectiveness of methods of incentivisation and management of channel shift, and produce guidance for customer group directors and public service providers.
- (2) Each customer group director should determine the integrated channel strategy within the overall service delivery model for that customer group, and agree a plan for the implementation of that strategy. This plan should give a clear trajectory to the digital transition of that group – the point at which interactions are assumed to be digital, and non-digital interactions are handled as exceptions (for example, through intermediaries).

- (3) Customer group directors and public service providers should promote responsible channel choice by informing people how much it saves to more efficient channels and what that saving could achieve in terms of better public services.

91. In addition action is needed to improve government's use of the two principal channels for service delivery over the next decade— the internet and the telephone— as well as to learn how best to use the increasingly important mobile channel.

Internet

92. The UK public sector has many websites – at least 2500 – although there is no central record or understanding of its web estate. Its overall presence has been criticised for lack of consistency of message and brand; lack of customer focus; and inefficiency through duplication of content and infrastructure. By contrast the BBC, with clear vision and tight integration, has one of the most respected and admired websites in the world.

93. Bob Phillis's Review of Government Communications found that although significant resources are being devoted to government websites, the impact has been diluted by a lack of integration within departments and across government. He recommended that: the central government website should be redesigned to meet the needs and perceptions of users, with individual departments only becoming "visible" when this makes sense to the users; that information on local public services should be prominent and easily found; and that there should be increased investment in websites to reflect the increasing importance of this method of communication.

94. Ministers decided in Spring 2004 that government departments should fully utilise the capability of Directgov as the primary on-line channel to citizens and rationalise their own citizen-facing e-channels around Directgov. There was also agreement that all relevant government advertising and marketing campaigns should follow the Directgov Uniform Resource Locator structure and, over time, send customers to campaign content residing within Directgov.

95. Since that decision the governance of Directgov has been changed so that it is clearly accountable to the Departments that fund and use it, and new management has transitioned Directgov from an experimental project into a sustainable live service and a basis for further strategic development. It now receives close to two million visits a month and is the government's fourth most visited website. It is also used as the destination for campaigns for student finance, education maintenance allowance, car tax renewal and mental health and discrimination. By March 2006 it will have transactions embedded for Worktrain, Transport Direct, Electronic Vehicle Licensing, Driver Licences Online, State Pension Forecasts and Disability Living Allowance. A unique "service application matrix", linking the citizen directly to the most relevant local authority services in their area through the Directgov website, will also be available from December 2005. In addition, Directgov currently provides links to many other local and central government services.

96. To ensure that overall the government uses the web most effectively to support its service delivery and communications strategies, the web presence of government should be rationalised, improved and focused on customer needs rather than organisational structures. In particular:

- (1) The Government CIO and Government Head of Communications should further develop Directgov – and, working with the Small Business Service of the Department of Trade and Industry, Business.Gov – as the preferred on-line entry points for information and self-service transactions.
- (2) The Government CIO, through the Directgov Board, should improve the use of search to access the government’s web information, learning from the way people now use the wider internet. This should include exploration of the potential for co-branded solutions with major search providers and exploiting existing search facilities, such as that developed in businesslink.gov.uk to cover 400 web sites relevant to business.
- (3) The Government Head of Communications should lead a comprehensive assessment by Directors of Communication and independent experts of the effectiveness, efficiency and accessibility of public sector websites.
- (4) The Government Head of Communications and Government CIO should jointly develop a policy on the use of wider public service websites, and the Government CIO should reflect this policy in public sector domain names allocation.
- (5) For customer information, self-service transactions and campaign support, services should converge on Directgov and Business.gov as the primary on-line entry points; service-specific or stand-alone solutions will be phased out. Departments should agree their plans to do so with the Government Head of Communications and the Government CIO.
- (6) Each government organisation should review its remaining web sites against the overall policies set out above and rationalise its web presence in line with its overall strategy for communications and coherent branding.
- (7) The CIO Council should consider the rationalisation of web hosting infrastructure, on the basis of the shared services approach discussed elsewhere in this strategy. This should build on the work of the inter-Departmental “club” already procuring a common content management system and hosting contracts for several Departments.

Telephone

97. For the next few years telephone is expected to remain the preferred channel for many customers; and for some is part of a journey from paper/face-to-face contact which will in time end with a further move to the internet channel. It will be important therefore for public services to seek opportunities to bring forward the efficiencies of moving to an electronic business model. The risk is that the telephone channel is seen as a “paper substitute” and transactions are thus handled by essentially unchanged underlying business processes. Public services should increasingly see

the telephone as a “web substitute”: they should ensure that they have re-engineered their business processes around a core internet/self-service offer and business model, and then offer access to that service through the telephone channel as well. Such an approach will ensure that legacy business rules are challenged earlier rather than later and should allow the realisation of benefits earlier than would be achieved by waiting for internet takeup alone.

98. A single phone number (the 311 service) was introduced in 2003 in New York City by Mayor Bloomberg. France is moving to a national single public service number (it has just gone live in one department). The Netherlands is considering a similar service.

99. No such wide-ranging plans for a single point of telephone contact exist for UK public services as a whole. However:

- (1) The Government’s 2005 Election Manifesto contained a commitment that “Not all problems need a 999 response, so a single phone number staffed by police, local councils and other local services will be available across the country to deal with anti-social behaviour and other non-emergency problems.”
- (2) Some Local Authorities have already consolidated 20-30 phone numbers into one call centre and so improved customer satisfaction.

100. It would therefore be timely to review public services’ overall offer through the telephone channel and consider explicitly whether or not the UK should move towards a “single number”. This might be in terms of a single number for everyone (“311”) or a single number for each customer group (“for all your needs as an older person phone 0800 123 4567”). Such a service could inject contestability and choice into telephone based delivery channels, and could be implemented by integrating existing capacity in the public sector rather than by additional call centres. The Service Transformation Board should commission such a review and report their recommendations to Ministers. The development of a Single Non Emergency Number service between the Home Office and the Office of the Deputy Prime Minister, involving local authorities and police force partnerships and currently focusing on non-emergency policing, crime and anti-social behaviour, could be the foundation for this service.

Mobile

101. To improve access for people on the move or without fixed phone lines a step-change should be made in the use of mobile phones and other mobile devices to exchange information and transact directly with citizens and front line staff. The Directgov pilot use of i-mode, developed in collaboration with O2, should be supported and evaluated with a view to wider availability to government through the Directgov platform. Directgov should develop its mobile presence with network providers to include rich media, mobile data and SMS based information designed particularly around the youth market.

3. TRANSFORMING CORPORATE SERVICES: THE SHARED SERVICES APPROACH

“But it is precisely because the public sector has invested £6 billions in new technology, modernising our ability to provide back office and transactional services, that I can announce, with the detailed plans Departments are publishing for the years to 2008, a gross reduction in civil service posts of 84,150 – to release resources from administration to invest in the front line.”

Chancellor, SR04 statement

3.1 Overall approach to sharing

102. Many parts of government are dealing with the same core information about customers and are also providing similar services or undertaking similar processes, whether in front, back or middle office. However the strong accountabilities which exist in line organisations mean that the culture of sharing across organisational boundaries is weak, and the actual level of sharing is low. So although individual organisations may look efficient there are inefficiencies and duplication when the public services are seen as a whole.

103. A new “Shared Services” approach is required. Shared Services involves the common delivery of a transactional operation or a function to more than one organisation (and often tens or even hundreds) to improve the effectiveness of those operations and to deliver them better, at lower cost. The component being shared might be a frontline service, a process or function in the back office (Human Resources, Finance, IT) or it can be a specific resource (a building, data, networks, information, a system or process). Through this approach greater efficiencies and effectiveness can come from:

- Economies of scale.
- Standardisation and streamlining.
- Better resource utilisation.
- Greater professionalism and management focus on supporting service delivery.
- Releasing front-line service management time to focus on front-line delivery.

104. There are, of course, obstacles to moving to a Shared Services approach. However most are analogous to those faced and overcome by the private sector over the last decade. The challenge for the public sector is to embed a culture where managers actively seek to improve the quality and efficiency of their outputs through sharing some of their inputs. This cultural change needs to be supported by a clear framework for sharing across government which encourages appropriate aggregation, commonality and standardisation without removing local flexibility and accountability. The change will require visible leadership from the top of government, including Ministers, Permanent Secretaries, Chief Executives and the Local Authority equivalents.

105. To kick-start this change:

- (1) There should be a clear strategy for sharing in each major function: customer service centres, including customer contact or payment processing centres; HR and Finance; IT infrastructure and services; data; information assurance; identity management; and standards and architecture.
- (2) The Cabinet Office should work with the Treasury, the National Audit Office and public service delivery organisations on guidelines for the governance and funding for service sharing in order to assist public sector managers to co-operate in the design and operation of shared services of all kinds. The Cabinet Office, Treasury, the National Audit Office, the Office of the Deputy Prime Minister and the Audit Commission should ensure that individual accountability frameworks expect and encourage full use of shared service provision where applicable.
- (3) Treasury and Cabinet Office should lead work to establish a small number of standard organisational and financial frameworks for shared services and information, and the Treasury should examine any necessary changes to Government Accounting to facilitate their operation.
- (4) Each government organisation should create and publish a 'sharing policy' which sets out its direction for using shared service arrangements operated by others and the terms on which others can have access to services run by them. The Cabinet Office and HM Treasury should produce guidance to ensure consistency of approach.
- (5) The Treasury should consider mechanisms, including a system of mandatory levies on existing Departmental budgets, to fund common good or infrastructure investments proposed by the CIO Council or the Service Transformation Board.
- (6) The National Audit Office should consider issuing a guidance statement on how it will approach audit and assurance of cross-departmental projects.
- (7) The National Audit Office and the Audit Commission should examine, as part of their general value for money audit responsibilities, whether individual delivery organisations are pursuing opportunities for economies from sharing or standardisation are being pursued sufficiently vigorously and whether management justifications for stand-alone provision are sound and represent real value for money.

3.2 Customer service centres

106. Government has many centres equipped with people, processes and technology to provide a service to citizens and businesses in a broadly similar way. Examples of 'front office' centres include those which handle customer contact and/or service request processes, whilst those in the 'middle office' include those which handle payment process and case management. Government organisations

should seek opportunities to share common processing centres in support of customer operations, and look to re-use existing capabilities when new processes are required.

107. Paragraph 79 recommended the creation of Customer Group Directors to look at ways of transforming the way service is delivered to these customer groups, supported by a Service Design Authority. These Directors should to investigate ways in which the front and middle office components of the service delivery chain can be put onto a shared service basis: for example how call centres could be shared (as is done regularly in the private sector), how the networks of government offices could be rationalised; how central government could make more use of local government facilities and staff; and how local government could make more use of central government's national infrastructures.

3.3 Human Resources, Finance and other corporate services

108. The annual running cost of Finance and Human Resources in the UK public sector is approximately £7 billion a year out of a total corporate services cost of £20 billion a year. It is estimated that over 1300 different government organisations run their own finance and HR functions without use of shared service options. The opportunity for improvement is considerable. Indeed the Gershon Review concluded that '*most public service organisations simply do not have the critical mass to provide professional corporate services*'.

109. Most large private sector corporations and many public sector organisations around the world are already adopting the shared service approach. Research on Human Resources/Finance shared service implementation in 13 of the world's most developed countries illustrates the following benefits:

- Savings of 10-50% of corporate service costs.
- System improvements, enhanced business processes, better quality information and improved decision making.
- Better trained and motivated staff.
- Staff are free to concentrate on value added work.
- A range of opportunities for regional development and Lyons style relocation around the use of centres of excellence.

110. The research also indicates some concerns in sharing services across the public sector as follows:

- Whilst shared services are seen as a major savings tool their implementation is usually sub-optimal with lower than expected returns.
- There is a significant economic and social impact to introducing shared services which needs careful handling.
- Public sector implementations of shared services typically presume in-house delivery rather than outsourced or offshore delivery. As a result, savings are typically lower than might be possible, and slower to appear.

111. The research shows that the best operational model for government should embody the following principles:

- The “strategic” elements (such as budgeting and resource management) of the functions should be separated from the “transactional” (financial reporting, accounts payable, payroll, pensions, recruiting and so on).
- Accountable officials should typically retain the strategic elements of the roles within their own line structures to help them discharge their own accountabilities. These should be small, senior teams focused upon the finance and human resources aspects of the specific area of government business in which they work.
- The transactional elements, however, should be provided through shared service functions, typically providing human resources and finance transactions to multiple government organisations. These should be relatively larger, leveraged teams, specialist in the corporate service being provided.
- The shared service functions should all operate to similar shared service principles. They should have a strong customer service ethos based on measured service levels, clear governance, and a commitment to the skills and career progression of their staff.
- The shared service functions should operate to a joined up philosophy towards their systems. There are few software packages in the market which can satisfy the scale and functional requirements of government. Yet government is remarkably un-joined up in its implementation of these packages leading to many variants on the ground. In future, government will join forces to select and implement packages in a standard fashion and obtain procurement economies of scale in the process.
- The shared service functions should also operate to standard processes driven by the software package in use. Processes should be changed to fit the package “out of the box”, avoiding substantial package customisation to fit previous processes.

112. Work is already underway with the Heads of Profession of Human Resources and Finance in the public sector to transform their respective functions. This work seeks to develop the professionalism of staff, to improve the effectiveness of decision making within the function and to reduce the administrative cost of the function.

113. If just average savings are made in line with private sector experience, there would be a £1.3bn cost reduction for HR and Finance alone. This is likely to be achieved given the relative levels of performance of these functions in comparison to the best operations in the private sector. This number also takes no account of any additional savings opportunity afforded by off-shoring.

114. It would be reasonable therefore to expect an average 20% saving across these functions over the next five years, including and extending the efficiencies of 8% already committed in SR2004 for the next three years as a result of the Gershon review, whilst simultaneously driving up their professionalism and effectiveness.

115. In addition modernisation of functions should lead to wider benefits as well as cost savings. For example, a properly designed e-recruitment strategy would offer significant cost savings from streamlining administration process and reducing advertising budgets. But benefits of this approach can also include improved ability to attract the "right" candidate to a difficult to fill vacancy and help in reaching a diverse audience of suitably-skilled candidates – improving overall recruitment of good staff, as well as achievement and monitoring of diversity targets. A best practice guide, drawing on experience from past projects both inside and outside Government, is already available at www.dti.gov.uk/industries/digital_content. It gives advice on how to use dialogue with the private sector to tap into best practice knowledge, to get the best value for money solution, and to make the most of the competitive marketplace in e-recruitment solutions. It also provides a list of statutory requirements which may apply to projects.

116. The Shared Services approach need not presume either that operations should be provided from within the public sector or that operations should be provided through Business Process Outsourcing. Value for money considerations should drive case-by-case decisions and it is likely that there will be a mixed economy of service provision into the future.

117. This corporate service transformation needs to be clearly owned by delivery organisations in order to succeed. The 1300 or so organisations which currently provide their own corporate services in entirety will need to decide how best to come together into shared service sectors. Each individual organisation should be expected to join one of the shared service sectors when fully defined. Such sectors could be of the following types – although more work is required to complete the sector planning:

- For the very largest organisations the first challenge would be to create a shared service capability within their own boundaries, before considering downstream whether further advantage can be gained from joining with others.
- For the tight families of Government Departments and arms length bodies shared services may make most sense across the family.
- For national service organisations a federated model across the service probably may be the best model.
- For geographically co-located organisations a shared service model based upon the geographic region may be appropriate.
- For other organisations – such as small central Government Departments – the choice may be to join up into a “club” to take advantage of shared services.

118. To achieve the maximum benefit across the public sector the Cabinet Office should:

- (1) Establish a Corporate Services Transformation Board to oversee the programme.
- (2) Appoint a Shared Services Transformation Director, supported by a Shared Services Team, in the Cabinet Office to lead this effort across the public sector. Specific tasks for this team are set out below.
- (3) Manage a shared services forum involving key stakeholders from across the public and private sector.
- (4) Drive governance and financing models (which can indeed be re-used in other areas of shared service) which incentivise and encourage organisations to participate in shared models.
- (5) Co-ordinate procurement and market-making activity.

119. The Shared Service Team working to the Shared Services Transformation Director should:

- (1) Manage a coordinated approach to shared services, working across organisational boundaries to ensure that government optimises its ability to share services and minimise duplication of effort wherever possible. This will reduce the proliferation of shared services centres.
- (2) Maximise government's return on investment in shared services, collaborating with OGC and other bodies to reduce the risk of programmes missing savings targets and outright failures.
- (3) Monitor and measure benefits, working with Treasury and departments to forecast and track the delivery of shared services benefits.
- (4) Agree sector plans, developing sector plans with public sector organisations to agree with the relevant public sector leaders the shared services roadmap for their family of organisations. This means creating a clear, agreed view of shared services solutions for small, autonomous governmental bodies e.g. NHS Primary Care Trusts, District Councils, Further Education bodies. It also means creating a plan for larger organisations in government which expands the types of services that might be shared.
- (5) Ensure market best value for government, with active involvement of OGC and the service providers to ensure that government is receiving best value for money from IT investment with the private sector. This means managing the IT and business consultancy market to encourage convergence around standard solutions and develop systems designed specifically for public sector use. It also involves the development of a commercial concordat that gives government best value and which results in being able to buy once and reuse many times.

- (6) Disseminate best and common practice, to raise the standard of delivery of shared services programmes across government by providing a repository of best practice tools and methods that will significantly increase the likelihood of success of shared services programmes. Key projects as Pathfinder projects should be used to learn in practice what works – and what does not – in the public sector.
- (7) Drive a collaborative way of working, chairing special interest groups, comprising public and private sector stakeholders, to foster collaborative environments which will provide public sector with access to skills bases, will facilitate learning and will further elaborate government's shared services needs.

3.4 Common IT infrastructure

120. The principles of sharing should also be applied to government IT infrastructure. Some examples already exist:

- The Government Secure Intranet for email and intranet services across (mainly) central Government.
- The Government Gateway for authenticating on-line transactions.
- The “club” of Departments sharing website content management software and services.
- Government Connect – a local authority programme for secure, efficient transactions and information exchange.

121. In the past each of these has sprung up of its own accord and there has been no systematic approach to identifying, sharing and governing common infrastructure. Therefore the CIO Council should create a unified approach to Common Infrastructure and an agreed roadmap and timetable for delivery, through:

- (1) Establishing a user led Common Infrastructure Board, chaired by a senior official from a user organisation (initially HM Revenue and Customs) and reporting to the CIO Council and Service Transformation Board to oversee development and delivery.
- (2) Appointing a Common Infrastructure Director to provide “intelligent customer” direction to all items of Common Infrastructure on behalf of CIOs.
- (3) Delivering Common Infrastructure through a specified set of delivery capabilities (e.g. OGC Buying Solutions, the eGovernment delivery team or local authority consortia) as appropriate.
- (4) Financing Common Infrastructure through user investment and usage charges to keep it customer focused.
- (5) Identifying areas for further “commonality”, such as “common good” security products or desktop infrastructure.

3.5 Data sharing and Information Management

122. Data sharing is integral to transforming services and reducing administrative burdens on citizens and businesses. But privacy rights and public trust must be retained. Data sharing will not improve public services unless public trust is retained.

123. Data sharing is a key factor because:

- (1) It is essential to the achievement of citizen-centred and business-centred services and to the personalisation of those services to the needs of individual customers – such as the individual budgets for elderly and people in social care. So data sharing helps deliver better public services.
- (2) It enables better policy making and evaluation. Benefits can be derived from greater access to personal data sets, strengthening the evidence base for policy making and research.
- (3) It allows spotting of patterns in an individual or organisation's behaviour or circumstances that may not be evident unless looked at in a holistic way.

124. The Hampton Review surveyed businesses and found that 91 per cent supported the sharing of data to improve risk profiling, 96 per cent supported the establishment of common reporting frameworks, and 94 per cent supported the sharing of data to reduce form-filling burdens.

125. The use of shared data to present a more detailed view of the customer is important to effective personalisation and choice. Information already held by government can be used to provide customers with solutions already tailored to their individual needs and wishes.

126. Sharing data similarly presents opportunities for the frontline. Quick and easy access to customer data enables better, real time decision making; better targeting of government services and the bundling and streamlining of communications, rendering them more effective, and less costly. Low value-added, high volume transactions can be made swifter, freeing up more time for complex cases. Data can also be shared with qualified agents and intermediaries, such as adult children of pensioners, enabling access to and delivery of government services via non-traditional means.

127. As the ability to manipulate data sets increases, so the opportunity to use data to develop well-targeted policies increases. Benefits can be derived from greater access to personal data sets, strengthening the evidence base for policy making and research. The Council for Science and Technology is working on a report to the Prime Minister on what beneficial uses could be made of the personal information stored in electronic databases both now and in the future; what needs to change to enable the benefits to be achieved; and what safeguards need to be in place. During the course of its work, it has stimulated considerable debate about the need for better linkages between Government databases to provide a stronger evidence base to drive more efficient and joined-up public services, and better targeted delivery of services in a more personalised and convenient way. As part of this work the Council

is developing a set of case studies in medical and other areas³⁰. These case studies identify ways that linking personal data can solve particular problems, who will benefit, what needs to change to make these linkages work, and how public and privacy concerns can be overcome. The Council's work builds on the findings of the Foresight project on Cyber Trust and Crime Prevention, which developed scenarios for 2018. The scenarios can be used to explore the implications of pervasive computing, connected datasets, and related technologies (www.foresight.gov.uk)

128. Shared data can be used to spot patterns in an individual's or an organisation's behaviour or circumstances that may not be evident, unless looked at in a holistic way. For example, it can be used to identify children at risk or undergoing difficulties because of family, health or other problems. Shared data can help identify fraud, and improve the effectiveness of the enforcement of civil judgments, criminal court fines and breaches of community penalties. For instance the FAME project in Lewisham has looked at sharing data across numerous different organisations and bodies, including Youth Offending Teams, GPs, Health Visitors, and schools to help identify where interactions are taking place with the same child. This has led to a better overall picture of interactions, leading to an improved outcome for the child, its family and more effective working for the organisations involved.

129. At the same time, it is essential that individual rights and concerns are at the heart of the debate on privacy and data sharing, in order that government retains the trust, confidence and engagement of the public.

130. Feedback suggests considerable confusion and a diverse range of interpretations and application of the legislation and guidance on data sharing. The current position is unclear. There is a strong call from both central departments and local government for a central strategy on data sharing issues. It is time to look at and clarify the position on data sharing again.

131. There should be a new Ministerial focus on finding and communicating a balance between maintaining the privacy of the individual and delivering more efficient, higher quality services with minimal bureaucracy. The work programme should include:

- (1) An agreement on the strategic direction and rationale for the balance between sharing data for better public services and greater security, and maintaining the individual's right to an appropriate degree of privacy.
- (2) Approval of a simple practitioner's toolkit, agreed with specialists and the Information Commissioner. This should include: a helpline; a call-off contract with specialist law firms selected by the Department for Constitutional Affairs to help advise practitioners on the Data Protection Act and related legislation; a simple one page 'fan fold' guide; and case studies.

³⁰ Our thanks to the Council for Science and Technology for discussing with us an early draft of their paper. Publication of the report is currently expected later this year.

- (3) Approval of common data standards and definition of a data architecture established for the public sector, taking account of international and European standards.
- (4) Development of standard agreements for use between organisations, defining use, access, security, accuracy, retention, further sharing and ownership of data; and the lead in determining the future development of the dataset.
- (5) Development of professional standards for all public sector servants with access to data to ensure that sufficient and proportionate disincentives and penalties for illegal access and use of data exist, based on the Care Record Guarantee in the NHS.
- (6) A review of the legislative framework, with the potential to recommend changes and secondary legislation. This should include an investigation of the use of statutory powers to use data, as used by the Audit Commission.
- (7) Consideration of whether an organisation or board should be established to provide a balanced and independent view on novel projects, based on, for example, the Department for Work and Pensions/HM Revenue and Customs Longitudinal Study Ethics Committee.
- (8) Agreement on use of anonymised and pseudonymised data to develop better-targeted policies and interventions for the public good e.g. data linkage to develop new approaches to detecting adverse drug reactions in routine clinical practice; use of data linkage to improve risk assessment for health effects associated with environmental pollution; and dynamic traffic management.

132. The Department for Constitutional Affairs should develop a communications strategy for both practitioners and the general public to explain data protection/sharing and the interpretation of relevant legislation.

133. Cabinet Office, working with the Department for Constitutional Affairs, should:

- (1) Work with suppliers to develop standard solutions to store, maintain, secure and share data.
- (2) Develop more comprehensive data standards which facilitate the sharing of data. This work should build on the e-Government Interoperability Framework and encompass business as well as technical standardisation.

3.6 Information assurance

134. Customers of new digital services need to be confident that the risks of new ways of doing business are appropriately managed.

135. The benefits in effectiveness and efficiency that new technologies can bring can only be fully realised if on-line services are seen to be resilient and safe to use. The

UK Government's Strategy for Information Assurance aims to provide an improved information risk management capability and assurance that risks to systems of key public interest are being managed. Some key elements from that strategy are:

- (1) The public and micro-businesses need to have confidence in on-line services. An internet safety campaign "Get Safe On Line" will provide for that need, and a new assurance scheme (government's "Claims Tested Mark") will give additional confidence in products and services used to deliver public sector systems.
- (2) Organisations will improve the way they manage information risks through better corporate governance and professionalisation of information security staff. Departmental Senior Information Risk Owners – board level staff with responsibility for balancing the benefit and risk of new services – will drive the corporate governance issues forward in conjunction with their Chief Information Officer counterparts and other board members. Government is working with industry, professional bodies and academia to develop competency based professional training and qualifications that are applicable in both the public and private sectors, and possibly the formation of an Institute of Security Professionals in 2006.
- (3) Common security standards and, where appropriate, infrastructure, will enable improved joint working across the public sector, and provide a more robust and resilient service. The adoption of ISO17799 – the international standard for information management – will develop further within the public sector, in particular with the introduction of Part 3 describing a coherent approach to risk management. Other independent standards, such as the tScheme quality standard for trust services, will continue to be supported.
- (4) Government's information protective marking scheme will provide more flexibility in matching protection to the impact of compromise. Government's Information Security Standard No.1 is being reviewed. It is anticipated that a significant amount of information currently protected to the "RESTRICTED" level will no longer attract that classification.
- (5) Re-design of government's networks to create a dual-tier service: a flexible, up-to-date infrastructure available to the whole of the public sector and secured to the highest commercial standards and a network providing nationally-classified services to the much smaller number of public servants that need them.
- (6) Establish secure centralised, consistent authentication and routing services that enable anyone who is properly entitled to access services from the place and by the means of their choosing.

136. To help ensure that the benefits of new services and systems are realised the right balance needs to be struck between security and usability. Organisations should take a more risk managed approach to service design. This would be in line with HM Treasury's guidance on how to take risks and manage their outcomes, in the so-called 'Orange Book', and with the recommendations more recently in the

National Audit Office's report, *Managing Risks to Improve Public Services*, which encourage departments to 'continue to develop their ability to take risks and innovate'.

137. Therefore action should be taken to:

- (1) Promote public confidence with a campaign on internet safety, and a new scheme to deliver a wider availability of assured products and services.
- (2) Improve information risk management through better governance and training.
- (3) Adopt common standards and infrastructure to provide safe and robust systems.
- (4) Develop a dual-tier architecture to underpin Government network services to provide the levels of flexibility and security that customers expect.
- (5) Provide consistent, capable access and authentication mechanisms that allow staff and customers to reach their services from wherever they choose.
- (6) Match protection of information to the impact of compromise, with an updated application of government's protective marking scheme.

3.7 Identity Management

138. Expectations about the quality of public services are increasing, yet citizens are inconvenienced by having to re-identify themselves in different ways to different public service providers on different occasions. The current generation of on-line services are complicated for the citizen to use: public service delivery organisations require different, usually unwieldy, passwords and log-ins. Even straightforward services that are common sense to the citizen – such as joining up entitlement to pension credit to entitlement to, say, meals on wheels – are hard to do efficiently given the scale and complexity of government systems and the wide disparity in methods of identifying people. The customer experience could be transformed by using strategic identity management to make it easier for customers to identify themselves and through better management of customer records.

139. Early guidance on the levels of security to be applied to identity authentication and enrolment for electronic services in government was created in 2000 when on-line services were in their infancy. Implementation of the original guidance has not been as expected, with often overly cautious application of levels of security leading to customers having to endure unwieldy registration and log-in procedures. For instance it is not possible to log in for the first time and do a tax return on-line on the last day returns are due – defeating the attraction of immediacy that the internet normally offers.

140. Moreover public service delivery bodies have no assurance of the reliability of each other's identity data and hence develop their own solutions. Poor understanding of risk management has led to a silo-based and risk-averse approach to identity – rather than a risk-managed and federated one. There are several systemic problems;

- People designing a service do not have a common risk management model to use to assess the risk level of a particular service design.
- External sources of identity such as the banking and financial services sectors are not given due weight.
- There is no readily accessible experienced support to guide those designing a service in how to do so with the minimum risk.
- Learning is not transferred between services, each developing their own procedures.

141. So the Cabinet Office lead the creation of a holistic approach to identity management, based on a suite of identity management solutions that enable the public and private sectors to manage risk and provide cost-effective services trusted by customers and stakeholders. As part of this programme:

- (1) An easy to use risk management model should be developed and approved by the Central Sponsor for Information Assurance. This will help reduce the risk transferred unnecessarily to the proof of identity, requiring commensurately lower levels of authentication easier for citizens and businesses to use prior to identity cards and secure identification becoming more widely available.
- (2) The model should provide guidance on the use of external authentication based on banking information – for instance if a citizen wants to pay a bill using a debit card in their name. Government, in identifying people in order to transact with them for low risk services, should not routinely seek to second-guess banking sector identities already used to ensure the financial stability of the wider economy when the citizen might find it more convenient to use them.
- (3) Existing high profile/high volume services should be reviewed using the risk management model to seek to improve log-in procedures.
- (4) The Central Sponsor for Information Assurance should approve a list of qualified experts to help with service design. These experts will help security managers have greater confidence in designing services that better balance risk and use.
- (5) Working with the Central Sponsor for Information Assurance, departments, local authorities and Government Connect, the Cabinet Office should maintain a list of best known methods that are approved for use at each authentication level developed with. The list should highlight methods that are in 'safe, common usage' and a way of certifying that bodies understand how to use them safely. This should allow people more

readily to use an identity established in the Government Gateway for more than one part of government.

142. The Government Gateway, with over six million enrolments, should remain the central hub of identity management for online transactional public services. As the actions above are completed, citizens and businesses will be able more readily to use single identities established through the Government Gateway and Government Connect to log into different public services on-line.

143. There is a lot of discussion in the technology industry about federated identity systems that provide innovative ways of transferring identity information and/or attributes between service providers. At present the business processes associated with federated identity systems remain to be proven in consumer-facing services on a large scale. Government will monitor progress with interest, not only in the commercial market but also in public sector programmes such as the 'Shibboleth' project being undertaken by the education sector and the European Union GUIDE project.

144. The need to join up and personalise services to individual need, set out in the Government's Election Manifesto, requires further steps. Because names are not unique and addresses change, services need to assign unique identifiers to individuals in their records. However because different services have developed separately over time government has ended up with many unique numbers. So it is difficult and error-prone to link records relating to the same individual across different public services when customers want that to happen. As a result, it is difficult for delivery bodies to join-up services or identify the need for interventions based on a pattern of data in different databases. Moreover in some areas – particularly education and local authorities – urgent decisions are needed on identification numbers as they reform their services into more citizen-centric models.

145. At present there are three main groups of identifiers in use:

- Health care data – 60-80 million records when the Connecting For Health personal record is complete – (in England and Wales) indexed by the NHS number. This is a near universal number for the UK population and a sound basis for operation within the health sector; but market research shows that people strongly do not want this data to be used for anything other than healthcare.
- Regulatory, permissive or security data – there are a range of different numbers in use. Although some cover large sections of the population (such as passport numbers and driving licence numbers) none are universal and some have an intrinsic meaning (for instance a criminal records number implies the existence of a criminal record).
- Social security and tax data is indexed by the National Insurance Number. This is near universal (it is required for all taxpayers and benefit recipients and has long been issued automatically to UK citizens on reaching the age of 16). It has no intrinsic meaning. It has already been agreed that the National Identity Register, when introduced, will contain the National Insurance Number.

146. The work done on the Citizens Information Project by the Office of National Statistics has shown that there are significant customer service and financial benefits from more consistent identity numbering and the sharing and common maintenance of basic citizen details; and that while, in due course most of these would be delivered by an identity card system there are substantial additional benefits from earlier, tactical action.

147. So a pragmatic, low risk route to enabling cross-referencing data prior to the National Identity Register becoming operational and during its ramp-up phase could be to make the National Insurance Number and the basic personal identification data of the individual to who it applies (for instance name, age, gender, date of birth and address) available to other public service delivery organisations. This could be of particular value for the education sector and local authorities, who urgently need a systematic way of indexing their customer records.

148. The objectives of more joined-up services and fewer numbers for customers to remember could be achieved without any sharing of the data on financial circumstances or benefit entitlement held by HM Revenue and Customs and the Department for Work and Pensions. Nor would it entail holding data together in a big database. The necessary objectives could be met by sharing the basic personal identification data within the terms of data protection law.

149. So there should be an active programme to rationalise electronic gateways and citizen and business record numbers:

- (1) The Cabinet Office, the Department for Work and Pensions, HM Revenue and Customs should consider the practicality and legal issues of making wider use of the national insurance number to index citizen records, both to deliver early business benefits and as a transition path towards an identity card. This would avoid wasteful creation of new databases; it would allow public service providers, subject to law or consent, to join records up more easily; and it would make it easier to enable citizens who wished so to do to access their public records. This would require studies on feasibility, governance, legal framework and funding. A possible route to implementation would be to amend the newly-created Department for Work and Pensions Customer Information System to serve National Insurance Number identity data to approved public sector organisations.
- (2) HM Revenue and Customs, Companies House, the Office of National Statistics and other agencies should consider the scope for rationalising identification numbers for business, based on the work already underway as a result of the merger between the Inland Revenue and HM Customs and Excise and on the existing joint working between HM Revenue and Customs and Companies House.

150. The Government has legislation before Parliament to introduce an identity card scheme. The scheme will provide a simple and secure 'gold standard' for proving identity. It will protect people from identity fraud and theft and provide them with a convenient means of verifying their identity in everyday transactions. As identity

cards become available over the next few years, they will make access to public services more straightforward and secure.

151. Current plans for the National Identity Register that will support the identity card entail recording the National Insurance Number on the Register at the point of enrolment. HM Revenue and Customs and the Department for Work and Pensions also intend to record the National Identity Register Number on the Department for Work and Pensions Customer Information System. This will allow full use of the Identity Card by the citizen to access public services.

152. The identity card is a long term, whole government scheme. Public service delivery organisations should produce identity management frameworks to map a path from their current identification practices and systems through to convergence on the use of biometric identity cards and the National Identity Register.

3.8 Technology Standards and Architecture

153. Providing secure, efficient shared services to government staff and customers will require change in how systems are structured, linked and shared across government. For instance, it will be important to ensure that it is technically and architecturally feasible for individual back end systems to be accessed through a variety of front-end systems and presentation layers. The CIO Council, supported by the Service Design Authority, should:

- (1) Ensure uniformity in departmental approaches to e-business will enable a new nimbleness. Many departments have Enterprise Architectures, Information Architectures and IT Strategies. Core unifying principles need to be agreed that enable strategies to dovetail together and facilitate sharing of services and data.
- (2) Publish consistent interchange standards and business rules to simplify the sharing of existing data-sets, to allow the incremental addition of new data, and to enable the construction of new services that make use of existing data. The objective should be to enable new transactions to be established quickly, easily and securely.
- (3) Extend the existing interchange standards to embrace Geographic Information, working with the Geographical Information Panel and the Ordnance Survey.
- (4) Work with the National Archives and the British Library to agree interchange and storage formats for electronic documents and for their long-term retention as part of an electronic Public Record, and consider with the Shared Services Team and Departments the scope for applying the shared services approach to electronic records and document management.
- (5) Identify and promulgate standardised solutions to problems that occur across the public sector, and promote the exploitation and reuse of architectures, designs, systems or components within the public sector.

- (6) Develop a high level of standardisation in desk-top architectures and specifications. The objectives should be to achieve lower cost of ownership, to promote a more competitive market in supply and management, to enable easy access to services provided on a shared basis, and to provide a consistent user experience for staff moving between Departments or working away from their base.
- (7) Work with the Central Sponsor for Information Assurance to specify safeguards against malicious use, intrusion, data theft, spam and viruses.
- (8) Continue to monitor developments on Open Source software and exchange practical experience on appropriate use, in line with existing policies.
- (9) Collect and share best practice on administrative, collaborative and knowledge management tools, particularly in the context of more flexible ways of working within and across organisational boundaries.

4. TRANSFORMING CAPACITY TO DELIVER: PROFESSIONALISM

“So we have already come a long way. But we need to consolidate the skills we already have, and develop other areas further. Our aims are:

- * stronger leadership at the top of the Service;*
- * improving everyone’s professional skills;*
- * improving our ability to deliver programmes and projects;*
- * working differently – focusing on what needs doing and doing it well.”³¹*

154. Government’s ambition for technology enabled change is challenging but achievable provided it is accompanied by a step-change in the professionalism with which it is delivered. This requires: coherent, joined up leadership and governance; portfolio management of the technology programmes; development of IT professionalism and skills; strengthening of the controls and support to ensure reliable project delivery; improvements in supplier management; and a systematic focus on innovation.

4.1 Leadership and Governance

155. Coherent, joined-up leadership and governance across government are essential to ensure the vision and programmes set out in this strategy are achieved and that the opportunities for technology to enable change continue to be identified, communicated, managed and delivered effectively. Complex reform requires consistent pressure to be applied across the whole system for a number of years. Leadership needs to be provided at several levels – by Ministers and Councillors; by Heads of Department and equivalents; by business leaders across the public sector; by CIOs; and by industry leaders – and aligned with the wider governance of the public services. An open and transparent approach to plans and performance is essential.

156. Effective governance is not just a set of processes and committees. It will require:

- (1) Shared understanding of the vision and of the operating principles through which government seeks to achieve it.
- (2) Coherent, joined up leadership across government.
- (3) An effective structure of collegiate decision-making.
- (4) A robust system of controls that ensure that the vision of the leaders and the decisions of the relevant bodies are carried through in practice.
- (5) Clear definition of roles and getting the right people into those roles.

³¹ Memorandum from the Cabinet Office on the Inquiry into Civil Service Effectiveness

157. The leadership and governance of this government wide transformation strategy will involve a number of key boards and committees. All have a part to play in ensuring the successful delivery of the strategy:

- (1) Leadership needs to be provided at several levels: by Ministers; by Heads of Department and equivalents; by business leaders in Departments and across the wider public sector; by CIOs in Departments and across the wider public sector.
- (2) The Strategy is about IT-enabled business change, so leadership and governance need to come from the business part of government as well as the IT part – and the business and IT parts need to work together to achieve success.
- (3) The Government's CIO, supported by the Office of the CIO, including a new Service Design Authority, and the Office of Government Commerce (OGC) have key roles in supporting that leadership. However this strategy cannot be delivered solely by central leadership alone.

158. The principles of this strategy include customer focus in design and standardisation and sharing in execution. This requires joined-up consistency and action across public service providers. This should be achieved by joining and sharing the expertise and knowledge across government, collegiately agreeing the policies, and then ensuring that they are carried through in each of the participating public service providers. The 'Centre' should create the environment for business and technical leadership to reach collegiate agreement, provide the leadership of the agreement process, and then help ensure consistent execution. However, it is not the role of the Centre to determine alone what these policies should be. Thus the key feature of the governance model set out here is that it is a collegiate one and not a hierarchical centre/department one.

159. The overall governance will need to include:

- Collective governance at the top – provided by Ministers and Permanent Secretaries.
- Collective governance by government business leaders through a Service Transformation Board on citizen-facing services and through a Corporate Services Board on internal services.
- Collective governance by government IT leaders through the CIO Council
- New executive bodies to support the collective governance, particularly a Service Design Authority.
- Some key roles, which are new or which have started to emerge only in the last 12 months, of the Department CIO, the Customer Group Director and the Government CIO himself.

Key Boards and Committees

160. Three relatively new collegiate bodies should play a key role in driving effective delivery of this strategy:

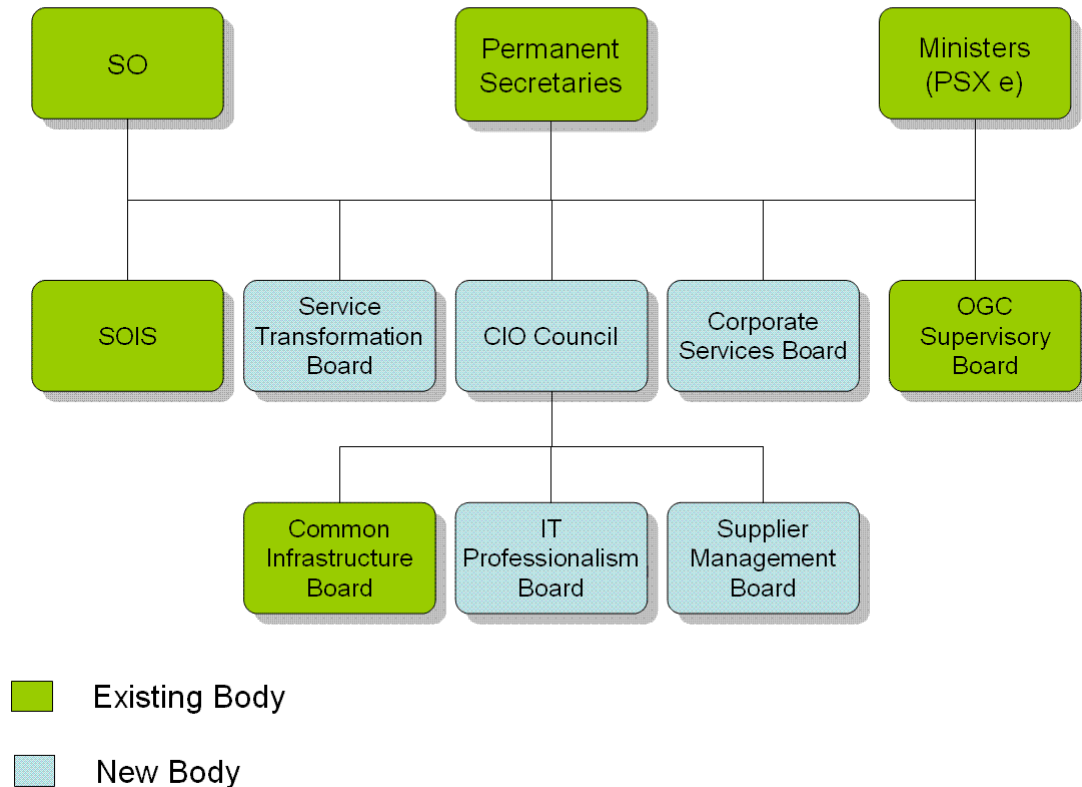
	Overall Remit	Membership
Service Transformation Board (Annex E has more details)	To sponsor and promote an end-to-end customer centric service design and delivery vision across public services	Leaders from Departments, local government and the health service, normally at Chief Executive/Director General level; and Customer Group Directors
CIO Council (Annex F has more details)	To sponsor and promote the professional management and delivery of IT in government, including the development of IT professionals and the management of IT suppliers	CIOs from government departments and CIOs representing local government and the devolved administrations
Corporate and Shared Services Board	To sponsor and promote the design and delivery of shared corporate and supporting services	[to be developed]

161. In addition existing top-level governance bodies should have an important role in ensuring delivery of the strategy:

- (1) At Ministerial level the existing Ministerial Committee (PSX(E)), chaired by the Chief Secretary to the Treasury and attended by the Minister for the Cabinet Office and by the Senior Responsible Ministers from key Departments, should continue to give day to day Ministerial oversight of the government technology programme and the implementation plan of this strategy. In addition to reporting to PSX on its whole remit, PSX(E) should also report to the Public Services Reform Committee (PSR) on progress towards customer-centric government within this transformational strategy.
- (2) At Head of Department level, Permanent Secretaries should give their sponsorship and commitment, and collegiately agree priorities and review progress. There are important links to other aspects of public service reform, including performance management and professionalism. How this is to be done is a matter for the new Cabinet Secretary.
- (3) The OGC Supervisory Board should continue to lead on issues concerned with purchasing and project and programme management professionalism, purchasing policy and governance and control of mission critical projects.

- (4) SO and SOIS should continue to lead on issues of security policy.

Proposed Governance structure



Key Roles

162. Three relatively new roles are essential for achievement of this strategy: the departmental (or authority) CIO; the Customer Group Director; and the Government CIO. The Government CIO should work with the Head of the Civil Service and individual Heads of Department to formalise and embed these roles.

Departmental CIO

163. A CIO is normally defined as a top table executive with an IT heritage who personally represents IT-enabled business change and operations to the Board.

164. Within a Department the CIO should:

- (1) Account to the Board on the effective and efficiency use of technology across the organisation.
- (2) Participate in the development of the Department's business strategy to ensure that technology opportunities are recognised and exploited to achieve the organisation business mission.

- (3) Advise the Board collectively and individual business leaders individually on the opportunities for IT-enabled business change, including constructively challenging existing business processes and methods.
- (4) Ensure that the department's IT is efficiently and effectively organised and provided, taking account of industry norms and benchmarks.
- (5) Ensure that the department's IT-enabled programmes meet agreed Departmental and cross-Departmental standards.
- (6) Ensure that the department's IT suppliers and contracts are effectively managed.
- (7) Ensure the professional development of the Department's IT staff and provide personal, visible, professional leadership to them.
- (8) Develop and articulate the Department's technology strategy and architectures.
- (9) Approve key technology appointments across their delivery chain.

165. Departmental governance procedures should ensure that major IT-enabled projects do not proceed past key control gates without the personal, professional approval of the Department's CIO. Where a CIO considers that the IT or project management elements of a programme are unsound, but Ministers or the departmental board are minded to proceed, there should be a process equivalent to that available to accounting officers (and some other Departmental Heads of Profession) where the Minister should be formally advised of the risks by the CIO through the Head of Department and the Minister should give a clear instruction to proceed. In such cases the Head of Department would normally wish to involve the Government CIO before advising his Minister. Any cases where the Department chooses to proceed, despite the CIO's professional advice, should be reported to the Government CIO and the Head of the OGC.

166. Each Department's CIO should carry out an annual assessment of the effectiveness of the Department's IT function, the robustness of its IT strategy and its compliance with cross-departmental agreements and standards, and report the results both to the Departmental Board and to the Government CIO. The assessment should be in a standard form approved by the CIO Council. A sample CIO scorecard is included in Annex D.

167. As a member of the community of CIOs in government a Departmental CIO should:

- (1) Play an active role in the CIO Council, including leading, where appropriate, collective work on behalf of the Council.
- (2) Play an active role in building professional capacity in their Department and across their delivery chain, championing best practice and the government IT Profession.

168. The appointment of a Departmental CIO should be made by the Head of Department after consulting with the Government CIO. The Government CIO or his representative (perhaps another member of the CIO Council) will normally be on the selection panel for a Departmental CIO post or for other very senior IT appointments.

169. The Departmental CIO will normally be a member of the Department's Executive Board. Where this is not the case, or where the CIO's job description does not include all the responsibilities in paragraphs 164-166 above, the Head of Department should agree with the Government CIO how equivalent governance and strategic engagement will be achieved.

Customer Group Directors

170. Customer Group Directors should have the lead responsibility across government for the overall transformation of the complete set of services to a customer segment, working across the whole public sector and potential intermediaries from the private or voluntary sector. In particular the Customer Group Director should:

- (1) Develop and secure agreement to a strategy for the transformation of services to their Customer Group.
- (2) Specify the required customer experience and channel strategy for their Customer Group.
- (3) Agree with relevant services implementation programmes to transform services to their Customer Group, and oversee the execution of those programmes.
- (4) Provide continuing leadership on services to those customers, including commissioning regular customer research.
- (5) Advise the Treasury on resource allocation across government for services to their Customer Groups.

171. Each Customer Group Director should report to the Minister responsible for that customer group, and normally be located within that Minister's Department. In many cases Ministerial responsibilities for particular customer groups are already clear. Where there is no clear existing assignment of Ministerial responsibilities, the Head of the Civil Service should advise the Prime Minister on how the necessary Ministerial oversight could be provided.

172. Customer Group Directors will also require sponsorship from a senior civil servant at the centre of government to take an overview of the Customer Group strategies and plans. This role would convene meetings of the Customer Group Directors, draw together their views, and address common issues. This reporting line for Customer Group Directors is a matter for the new Cabinet Secretary to consider.

173. Customer Group Directors should work together through the Service Transformation Board or bilaterally to ensure that issues generic to several customers groups are efficiently and effectively addressed according to the principles of transformational government set out in this strategy.

174. A more detailed role specification for a Customer Director is in Annex G.

The Government CIO

175. The Government CIO is the Government's principal adviser on IT and the Head of the IT Profession. He should:

- (1) Provide strategic leadership and drive to the application of technology in government to support public sector policy objectives, including the transformation of public sector delivery and a step change in operational efficiency across government; create and maintain joined up, business led IT strategies and policies; drive citizen centric public service reform enabled by technology.
- (2) Advise the Treasury on priorities and targets for IT spend and investment, and for IT-enabled transformation programmes.
- (3) Advise on key IT-enabled projects and recommend remedial action where necessary.
- (4) Define the government's overall technology vision, architecture, standards and policies; create standard IT and service design operating principles; develop and maintain government wide data models and standards; drive use of shared applications; and identify interoperability or common approaches to infrastructure as necessary.
- (5) Support the Security and Intelligence Coordinator on Information Assurance strategy and policy and work with the relevant authorities to ensure effective and economic technology security to facilitate the effective performance of government business.
- (6) Drive corporate services transformation enabled by technology.
- (7) Build partnerships with IT suppliers.
- (8) Be the visible Head of Profession to all IT professionals; develop a strategy for IT professional capacity and capability across government; set standards for IT professional competency across government; ensure effective career management and development and training support, build a critical mass of talent, advise on compensation and bonus policies.
- (9) Chair the CIO Council; assist in the appointment of CIOs; and assure departments' assessment of their competency and capacity to deliver.

Executive support to the collective governance

176. The Office of the Government CIO should provide four key executive functions in support of the governance structures and roles outlined above: an IT Strategy Programme Management Office, dealing with strategy and planning, budgeting, and performance monitoring; an IT Professionalism Team building IT capacity within and across government through the 'Professional Skills for IT programme'; a Shared Services Team; and a Service Design Authority discussed immediately below.

177. The OGC should support the CIO Council in managing suppliers and in major project delivery, and in promoting purchasing and project management professionalism.

Service Design Authority

178. The key to standardising, simplifying and sharing should be the creation of a Service Design Authority for government. This should report to the Service Transformation Board, although to ensure seamless integration of business, corporate services and technical design it will also provide support to the Corporate Services Board on its responsibilities and to the CIO Council on technical matters.

179. Acting as government's Business and Technical Design Authority the functions of the Service Design Authority should include:

- (1) Developing the business and technical architecture principles and standards for government (e.g. channel strategies and channel delivery vehicles, interface standards and definitions).
- (2) Commissioning service audits for particular areas to assure the government that agreed Business and Technical Architecture design principles and standards are being implemented in practice.
- (3) Sharing best practice collected from across the public sector, other governments and the private sector. Examples might include the experience of other governments in citizens' use of on-line service channels or the creation of standard protocols for certifying intermediaries to act on behalf of identified customers, reducing the need to negotiate from scratch for each service or organisation.
- (4) Having a "challenge" role to individual service providers, both when it sees sub-optimal performance or identifies opportunities for potential exploitation of new technologies.
- (5) Proposing to the Service Transformation Board, the Corporate Services Board or CIO Council, as appropriate, any necessary common business or technology infrastructure programmes (although the Service Design Authority will not have responsibility for the delivery of such infrastructure.)

180. The Service Design Authority should be located in the Office of the Government CIO. It should be staffed largely by a rolling programme of secondees from departments and the wider public sector, from major suppliers and from outstanding private sector service organisations.

4.2 Portfolio Management

181. The UK public sector spends around £14 billion a year on IT enabled projects and operations, yet there is no comprehensive overview of it. The technology agenda requires management of the totality of its technology enabled programmes at portfolio – as well as programme – level to deliver results with more predictability. Portfolio management will allow government: to match supply with demand; to anticipate generic challenges; to identify duplication and other opportunities for standardisation and sharing; to challenge relative low value projects; and to set priorities when competing for scarce capacity. A similar focus should be used at departmental or equivalent level, using a common methodology based on work already being introduced in the Department for Work and Pensions and Her Majesty's Revenue and Customs.

182. The Treasury and Cabinet Office agree that measures need to be taken in forthcoming spending cycles to measure, monitor and manage the amounts spent on IT across the board. This is necessary for three reasons:

- To assess the size of demand which government will make of its IT professionals and supplier marketplace so that capacity can be matched to demand or, if capacity is constrained, to manage demand to available capacity.
- To allow Ministers to ensure that financial and professional capacity is focussed on the right priorities for Government as a whole.
- To satisfy Parliament that a holistic approach is being taken to an area that has suffered problems in the past.

183. Achieving critical reform and efficiency objectives within a tightened fiscal environment will require headroom to be created for new priorities, whatever level of spend is appropriate in a given economic cycle. This should involve actions which:

- Drive cost out of the legacy systems operations contracts, some of which have become bloated in later years.
- Reserve a rising portion of that total spend for “common good” and “shared” investments of the type described in the corporate services section above.
- Kill off failing or superseded projects earlier in the lifecycle.
- Leverage cross-public sector buying power on genuine “buy once use many times” assets.
- Further simplify procurement processes to reduce costs and elapsed times to procure.

184. The cost of IT projects and operations should in future be measured and monitored at the aggregate level. Annual expenditure and achievement against plans should be reviewed by the Cabinet Office and HM Treasury. An annual report should be published to Parliament and audited by the National Audit Office and the Audit Commission.

4.3 Government IT Profession

185. The Government is creating a government-wide IT Profession up to and including Board level in order to provide IT Professionals with the opportunity to reach the highest levels of the Civil Service and the broader Public Service. Key drivers for this initiative include:

- The Professional Skills for Government agenda, which aims to provide individuals in all areas of the Civil Service with the skills and experience needed to design and deliver 21st century services.
- Recognition within government that better IT skills were needed for the future – as articulated, for example, in the McCartney Report (2000).
- Continued public perception that government does not have a track record of success in the delivery of large-scale, IT-enabled business transformation.
- Feedback from IT Professionals working within government today that they do not feel valued and do not feel that they have the career development support that they need to reach their full potential.

186. The Government IT Profession should create a positive culture and should encourage the sharing of best practice and people across organisations. It should also work closely with Ministers and policy makers to help them to understand that the best IT Professionals can add value to their thinking by identifying opportunities to deliver better services through the innovative use of IT.

187. The Government IT Profession should provide:

- (1) A simple competency framework based on the Skills Framework for the Information Age which should provide a consistent model through which best practice and people can be shared across government. In addition, the framework should provide a view of the training, work experience and qualifications required by IT Professionals as they progress through their career. In short, it should enable an individual to understand their specific skills and skill needs and to identify required and available training, work experience and qualifications.
- (2) A programme to roll-out the Government IT Profession across central and local government by actively engaging individuals in, for example, networking and mentoring activities. Networking by individuals working in the same area (e.g. service delivery) across organisations should encourage the sharing of best practice and experience. Individuals should, over time, have a mentor in their competency to provide them with a view on the training, job experience and qualifications they need to reach their potential.

- (3) A Government IT Academy to develop professional skills and capabilities which distinguish individuals as IT Professionals. The Government IT Academy should not necessarily be about the 'bricks and mortar' of a building and may remain virtual. It should support the sharing of common experiences between peers in both the public and private sectors and will provide a centre for learning. The detailed strategy for establishment of the Government IT Academy should be finalised in the first quarter of 2006.
- (4) Communication to reach 50,000 public sector IT personnel and other key stakeholders. CIOs should meet face to face with as many of their people as possible in their role as the local Head of Profession. Professional leaders should also hold road shows and other communications events to engage with individual organisations.
- (5) Self-selection and registration. Following the successful lead given by the Government Communications Network team last year, a website has been established to give individuals the opportunity to 'register an interest' in the profession and directly engage with its agenda.

188. The IT Profession team should actively engage with Human Resources across government to involve them in the establishment of the IT Profession as well as to begin to address perceived 'pay and rations' issues. This will allow learning from the local and professional expertise of departmental human resources teams.

189. In summary therefore the Government CIO should lead the work to:

- (1) Develop a competency framework to support the career development of IT Professionals across government, establish a communications programme to support the initial launch and on-going development of the Government IT Profession and establish a programme to roll-out the Government IT Profession across central and local government by actively engaging individuals in, for example, networking and mentoring activities.
- (2) Establish the Government IT Academy to support both the professional development of IT Professionals in government and the building of a culture and identity for the Profession.
- (3) Identify and establish required 'capability building' programmes to provide training and leadership development support for government IT Professionals.
- (4) Actively engage with Human Resource teams across government.

4.4 Reliable Project Delivery

190. Political and public pressure for change mean that the public sector IT project portfolio is always demanding. Moreover the scale and complexity of public sector projects, particularly on national projects in a country the size of the UK, means that public and private sector capacity to deliver is constantly stretched. Actions elsewhere in this strategy address issues of capacity among government's IT professionals and among government's IT suppliers.

191. The National Audit Office and the OGC have identified eight common causes of project failure:

- (1) Lack of clear link between the project and the organisation's key strategic priorities, including agreed measures of success.
- (2) Lack of clear senior management and Ministerial ownership and leadership.
- (3) Lack of effective engagement with stakeholders.
- (4) Lack of skills and proven approach to project management and risk management.
- (5) Too little attention to breaking development and implementation into manageable steps.
- (6) Evaluation of proposals driven by initial price rather than long-term value for money (especially securing delivery of business benefits).
- (7) Level of understanding of and contact with the supply industry at senior levels in the organisation.
- (8) Lack of effective project team integration between clients, the supplier team and the supply chain.

192. It is notable that technology issues themselves do not feature among these causes of project failure.

193. Much work has already been done, championed by the Office of Government Commerce (OGC), to drive best practice in programme and project management, and in procurement through their Gateway Reviews. For example:

- (1) Gateway reviews have been demonstrated by the National Audit Office to improve programmes' prospects of success by advising Senior Responsible Owners on action needed to correct problems.
- (2) Programme and Project Management Centres of Excellence are providing a focal point for advice, board reporting and skills development.

- (3) The Programme and Project Management (PPM) Specialism has helped to raise the profile of PPM expertise within Government and to encourage departments to develop their PPM skills and capability.
- (4) Capability building initiatives sponsored by the Office of the Deputy Prime Minister and organisations such as the Society of Information Technology Management are improving PPM skills across the broader public sector.

194. As a result measurable improvements have been achieved across government in the success rates of low, medium and high-risk projects of all types; and in large Mission Critical projects, examples of success can be pointed to, particularly where existing tools have been applied. However, to date the same effect has not been consistently achieved on large, Mission Critical, projects. Indeed recent analysis shows that:

- (1) There are broadly as many “Red” Mission Critical projects now as there were when reporting of them was introduced (although the reasons may be different and may in part reflect greater realism).
- (2) There are still too many high-profile IT-enabled business change project disasters.
- (3) Policy initiation and development takes often little, if any, account of capacity, capability and delivery implications.
- (4) Business continuity implications (i.e. doing the “day job” as well as introducing major business change) are too infrequently taken into account.

195. So there is a need for further development of support for programmes. For example, advice from Gateway reviews does not have to be followed and reviews can be deferred by projects which know they are in difficulty.

196. Application of existing tools needs to be more consistent and appropriate, and new tools developed to meet identified gaps, particularly focusing on robust project control by departments and the Centre and the provision of independent challenge and advice with the authority to influence key decision-makers.

197. There must be a greater emphasis on the key stakeholders in addition to the application of process and best practice. The aim should be to provide the people, tools and mechanisms to ensure delivery and enable Ministers to make tough decisions based on a realistic appraisal of delivery.

198. So a further programme of work, building on the foundations already put in place by the OGC, needs to be put in place to ensure not only the successful delivery of major projects but also confidence and controls to ensure the reliability of successful delivery. Restoring reliability of delivery will in turn restore public and political confidence in the ability of the public services to deliver major IT-enabled change. The key activities should be:

- (1) The development of strengthened scrutiny and intervention in Government's most important programmes, especially at their earliest stages.
- (2) Renewed support for Ministers and senior officials responsible for Mission Critical projects.
- (3) The implementation of a new tool to manage better the transition from policy to practical implementation.
- (4) The development of a new project control tool drawing from best practice in the private sector.
- (5) Closer OGC and Cabinet Office support for key programmes.
- (6) The creation of a wider programme to review what more can be done to improve the prospects of success for Government programmes.

(1) Strengthened scrutiny and intervention in Government's most important programmes, especially at their earliest stages

199. The OGC, Cabinet Office and HM Treasury should review how best to strengthen their approach to assessing projects at key stages:

- (1) At both a departmental and cross-Government level, there is an urgent need to match aspirations for project delivery with capacity and capability to deliver. There is recognition that some departments are severely stretched in both programme management resource and senior management time. The forthcoming Comprehensive Spending Review could provide an important means of ensuring that Government has the capacity in the right places needed to deliver on its project commitments.
- (2) The review could also provide the opportunity to ensure that commitments made are within the capacity of the supply side to deliver.
- (3) Prior to Treasury approval of funding for key programmes of IT-enabled change, OGC and the Cabinet Office should ensure that any outstanding issues from Gateway reviews have been adequately addressed.

200. There will be occasions when it is clear to those outside a project that it is unlikely to achieve its original goals. Sometimes this can be an environmental change – the project no longer fits within the overall policy direction of travel – or where there has been an internal management failure, failure to deliver on the part of suppliers or a combination of these. Collectively, the Centre should develop a mechanism that enables an external triggering of a project review in exceptional circumstances. OGC and the Government CIO should work with Centre colleagues to develop this.

(2) Renewed support for Ministers and senior officials responsible for Mission Critical projects

201. One of the eight common causes of project failure identified by the National Audit Office and the OGC is lack of clear senior management and Ministerial ownership and leadership. OGC has had success in formalising and strengthening the roles of the Senior Responsible Minister, Accounting Officer and Senior Responsible Owner.

202. The Government CIO and OGC should work together to ‘refresh’ the governance model for large-scale IT-enabled business change programmes. The strengthened governance model should not only reflect the roles identified above, but should also re-emphasise the role of the Programme Board, Business Change Manager and Chief Finance Officer in monitoring and supporting successful delivery.

203. The Chief Finance Officer, in particular, has a critical role to play through a focus on the long term capability of the project to deliver the anticipated benefits. The Cabinet Office, the OGC and the Treasury should find a permanent way of giving finance directors a clear role in approving the continuation of a project at review points in its lifecycle.

204. In addition, the Government CIO and the OGC should engage directly with Ministers responsible for each IT-enabled key programme to provide any support they consider necessary to reflect their individual needs, and work with them to institute robust processes for programme review. For example, this could involve a ‘triple key’ assessment between the Senior Responsible Owner, the CIO and the Chief Financial Officer on project delivery assurance.

205. As part of the IT Professionalism agenda, the IT Profession Team should work with the OGC to assess further support requirements for individuals in the key roles described above. This could include, for example, a workshop for Ministers and senior officials on governance of Mission Critical projects and risk.

(3) Implementation of a new tool to manage better the transition from policy to practical implementation

206. Evidence from Gateway review Gates 0 and 1 highlights the critical importance of establishing programmes correctly from the very start. Key decisions made at this stage influence the success of the project and are often difficult to correct later on. These can include a confirmation of policy objectives, governance and a public commitment to delivery timescales.

207. Building upon OGC experience in piloting Policy Implementation and Deliverability Workshops, the Government CIO and the OGC should develop and standardise a support process to be systematically applied as policy initiatives are being translated into IT-enabled delivery programmes to ensure that these are in the best possible shape to succeed. The process should be designed to support a clear, shared understanding of the aims and objectives of the policy initiative between policy developers and potential implementation teams. It should confirm the

resources required to deliver the agreed outcomes and ensure that timescales are achievable and interdependencies manageable.

208. Where a policy is likely to be delivered through a major IT project, Cabinet Committee approval should include an agreed statement from the Government CIO and the OGC on project implementability (in the same way that a statement on finance already needs to be agreed with the Treasury).

(4) Development of a new project control tool drawing from best practice in the private sector

209. Gateway reviews are aligned to key points in a procurement cycle, as opposed to the full project lifecycle; many projects go wrong between reviews; reviews can be deferred by projects that know they are in difficulty and recommendations from Gateway reviews are not mandatory and may be partially implemented.

210. Therefore, the OGC and the Government CIO should review the Gateway Review and other processes to ensure that appropriate monitoring and review is provided throughout the full change lifecycle. This should draw on best practice from the private sector to define key project milestones and the exit criteria which must be met at each milestone. This tool may have harder edges than the existing Gateway process.

211. As part of this, the OGC and the Government CIO should develop a standard checklist to ensure that the project exit option is given more attention in reviews of failing IT projects. This is not easy to achieve in a political climate, but it is better to address the future of weak programmes through a disciplined approach early rather than having to manage long-term failure.

(5) Closer support for key programmes

212. Non-Executive Board Members The value that independent, non-executive members of boards can contribute is widely recognised. Many Departmental Boards already have non-executive members with relevant external skills and experience. Departments, assisted by the OGC and the Government CIO, should appoint non-executive members to the boards of key programmes. Individuals being appointed should be:

- Independent of the department, although appointed by them from a shortlist provided by OGC and the Government CIO.
- Initially funded, and always accredited and supported, by OGC with the endorsement of the Government CIO.
- Capable of acting as a peer to the SRO, supporting them in a constructive, challenging manner, with political acumen and an understanding of the policy dimension of key programmes.
- Capable of adding value to Trajectory and Action Planning (see below).

213. The pool of non-executive board members should be managed as a programme, with appropriate recruitment, accreditation, performance management and quality assurance.

214. Where appropriate, a separate programme board member from the Cabinet Office or OGC should represent the particular interests of those departments and the centre, for example, to ensure that overall strategic approaches are followed. This should be a distinct and separate role from that of a non-executive.

215. Milestones and Trajectories The trajectory approach adopted by the Prime Minister's Delivery Unit to measure progress towards Public Service Agreement targets and more recently by OGC's Efficiency Programme Team should be adapted for key programmes. OGC Programme Engagement Directors should work with each key programme to develop and agree a trajectory of major milestones against which performance can be monitored and reported. The trajectory should include a schedule of Gateway reviews: this would help to address National Audit Office concerns that some projects are entering the Gateway process too late.

216. Action Plans, Capacity and Capability Non-Executive Board Members and Programme Engagement Directors should work with departments to develop a shared analysis of issues that may constrain the likelihood of an individual programme's success, including the capacity and capability of the programme team and governance. An action plan should be agreed between the programme board, OGC and the Government CIO and should be subject to structured review and monitoring. It will set out the support to be provided by the centre to support the successful delivery of the programme.

(6) Wider programme to review what more can be done to improve the prospects of success for Government programmes

217. The support outlined here is aimed primarily at key programmes but should form the model for support to be provided by departments' own Programme and Project Management Centres of Excellence for the other 100 Mission Critical Projects. OGC is currently developing a service for Centres of Excellence to help them to meet this challenge.

218. The OGC and the Government CIO should consider how better to support programmes in the wider public sector, drawing upon the experience of local government representatives on the CIO Council and organisations such as the Society of Information Technology Management.

219. Ministers and project leaders need to be able proactively to seek external independent advice and support throughout the lifecycle of a project, not just in a crisis situation. When they do, an appropriate response needs to be assembled promptly, drawing on the skills and experience of both the centre and the broader network of expertise available through the CIO Council.

4.5 Supplier Management

220. The successful delivery of the transformational programme set out in this strategy will depend not only on government's own capabilities but its ability to harness and improve the delivery capabilities of its IT suppliers.

221. Many of the government's major IT suppliers have a patchy track record on delivery with both notable successes and public failures. Problems have not been confined just to exceptional large projects. Accordingly CIOs cite improving supplier performance and management as one of the key priorities for government.

222. Conversely there are consistent messages from government's major suppliers that they find government a relatively difficult customer with which to engage; that there are extra costs of dealing with government which ultimately end up being recovered through contract prices, and which mean that, in those parts of the cycle where total demand exceeds the industry's capacity to supply, government may be a relatively unattractive market; and that government is failing to take advantage of the best the industry can provide.

223. Over the past five years some progress has been made at addressing a number of specific concerns:

- (1) OGC and Intellect convened a Senior IT Forum of senior IT figures in government and representatives of major suppliers to address common issues.
- (2) An IT Supplier Code of Best Practice, addressing some common concerns of customer departments, has been agreed and is now being promulgated within the industry and within government.
- (3) A Concept Viability process has been agreed that allows industry to make an input into nascent projects to give pro bono advice on feasibility and approach at a much earlier stage than formal procurement processes have allowed.
- (4) A Senior Responsible Industry Executive role for major projects has been defined, to parallel the role of the Senior Responsible Owner within government and ensure a similar clear senior focus on achieving success in the major suppliers to a project.
- (5) The OGC have taken the lead in using the government's aggregate purchasing power to negotiate more beneficial terms with major suppliers (for instance their deal with Microsoft has saved £84m so far).

224. Nevertheless CIOs see further opportunities to deliver better value for money and more reliable programme delivery through better management of supplier base. This would include wider sharing of intelligence, leveraging the purchasing power of government as a whole, and implementing smarter procurement processes, including greater standardisation of contracts for common goods and services across government.

225. The overall programme to improve government's management and engagement with suppliers should comprise the following actions:

- (1) CIOs should sponsor a regular forward look at demand and supply of IT services and agree a forward sourcing strategy, including action to ensure capacity and competition in the market.
- (2) CIOs should lead management of strategic IT supplier intelligence, relationships and performance across government, using a standard assessment framework.
- (3) The CIO Council and each major supplier individually should agree a performance plan to improve that supplier's delivery, capability and partnering with current and future public sector customers.
- (4) The CIO Council should encourage standardised contracts, standardised services and service boundaries, and sponsor associated development work by the OGC and the Service Design Authority.
- (5) Departments should use OGC Gateway 5 Reviews as a trigger for project contract review at end of implementation and periodically thereafter.
- (6) Departments should ensure that their primary contracts and service management models (e.g. on infrastructure management) allow them also to incorporate additional products and services from other suppliers including SMEs.
- (7) The CIO Council should enhance engagement with the IT industry through a strengthened structure building on the experience of the Senior IT Forum.

(1) Overall Management of Demand and Supply

226. Although a special assessment of the industry's capacity was made in advance of the procurements for the NHS National Programme for IT, normally government IT procurements are initiated at the time appropriate for project delivery on the assumption that the industry has sufficient capacity to supply whatever requirements the government has. Recent work by the OGC in the construction sector following the Kelly Report has shown that there were significant resource shortages and bottlenecks that could be alleviated by more co-ordinated purchasing by government agencies and by working with the industry to increase capacity.

227. Accordingly the CIO Council, supported by the OGC, should undertake a regular forward look of procurements and other new demands for IT supply, to ensure that the CIO Council have, and share, common, systematic data on planned procurements or other new demands in each of their Departments. In parallel the OGC, on the Council's behalf and working with Intellect and the major suppliers, should undertake a matching regular forward look at the capacity of the IT industry to supply, taking account of demand in other sectors. Based on this analysis the CIO Council should agree a forward sourcing and supplier strategy, taking account of

individual supplier plans and work to improve supplier performance and delivery (see below).

(2) Supplier Intelligence and Performance Assessment

228. OGC's Supplier Relations team acts as a broker for the interchange of information about supplier performance. It assists individual purchasers with information on the capabilities, viability and track record of prospective suppliers. However the service that they give is only as good as the information supplied by departments. The feedback they receive is unsystematic and of varying quality. More robust, consistently structured information would assist individual purchasers and give the CIO Council and the OGC a better basis to engage with individual suppliers and the industry more generally on supplier performance issues. Some suppliers have well developed internal assessment systems and share the results of these with the OGC on a confidential basis.

229. Accordingly the government should develop a common framework, as between government organisations and as between suppliers, for the assessment of IT supplier performance. This would cover not only overall performance but also performance on the major types of services (e.g. implementation, infrastructure, service management, application design and development). The government should consult, and seek to agree on the framework of assessment with suppliers. On behalf of the CIO Council the OGC would then run a systematic (and systemic) process to gather and validate data on performance within this framework, ensuring the personal engagement of CIOs to ensure that the results have credibility and are a robust basis for engagement with suppliers. There should be regular feedback to individual suppliers on their perceived performance according to this framework.

(3) Supplier Performance and Capability Development

230. CIOs should take a more active role in the management of supplier performance and the development of supplier capabilities in the government IT marketplace. In particular:

- (1) There should be regular review meetings of individual suppliers by those CIOs collectively whose Departments have or may have key or mission critical projects dependent on those suppliers.
- (2) For each key supplier, the CIO Council and the OGC should agree with that supplier an agreed performance plan setting out the key actions the supplier (and, where necessary, government) will take in order to improve or maintain that supplier's performance on existing contracts against the performance framework and reflecting CIO concerns at the review meetings; and also agreed actions to improve, focus or extend the supplier's capacity to supply.
- (3) The CIOs, the OGC and the supplier should review regularly progress against the performance plan.

231. The OGC should report regularly to the CIO Council on overall supplier performance, with identification of any generic supply issues and recommendations of any necessary actions that the CIO Council should take to address these as a community.

(4) *Standardisation of Contracts*

232. Government IT contracts have become more bespoke and more complex. In part this is a result of contracting for services rather than just products, and of different allocation of risks. However as a result the cost and time of procurement for both government departments and suppliers has increased; some, notably in the industry, believe that competition, particularly from new entrants and second-tier companies, has been inhibited; and accommodating later business change has become more difficult.

233. The OGC have now developed model clauses for IT contracts, reflecting the requirements and priorities of government purchasers and after consultation with the IT industry. These should be increasingly the norm for government contracts. This should lead to economy of effort by all parties and a more general understanding of the risk/reward model. Although very large or unusual requirements may require specific contractual provisions, the Departmental CIO and the Departmental Director of Procurement should critically challenge the need for these, involving as necessary the OGC Director of Procurement. Departments should normally publish the required contractual terms at the start of the procurement so that suppliers can take an early judgement about their own investment in the procurement process.

234. The benefits of standardisation in procurement do not only apply to contract clauses. Greater standardisation in functional specification, in the definition of service boundaries and in risk/reward models would enable greater competition, easier substitution, lower costs through commoditisation, and re-use of public service and supplier skills. The CIO Council, supported by the OGC and the Service Design Authority, should lead this standardisation. Individual CIOs should ensure that their purchasers use the standards agreed by the Council. In addition:

- (1) The CIO Council should review, with a view to more general adoption, work done in the Department for Work and Pensions and the Ministry of Defence on the standard specification of infrastructure components.
- (2) Purchasers using standard specifications should ensure that the scope of their procurement allows other purchasers the opportunity to use the same contractual vehicle.
- (3) OGC Buying Solutions should consider, as part of their programme of facilitating catalogue buying, establishing call-off supply routes for standard products or services agreed by the CIO Council.

(5) Review of long term contracts

235. Long, monolithic contracts can become inflexible in accommodating later business or policy change. In addition long-term contracts agreed at the start of a project cannot reflect the knowledge that both parties will gain during the development and implementation phase. Therefore:

- (1) Departments should use more standard specifications and contractual clauses to structure shorter-term contracts and to allow multiple sources of supply, improving contestability.
- (2) Where long-term contracts are necessary their periodic review should be a planned feature, especially at the end of the implementation phase. Use of OGC Gateway 5 Reviews – which are intended to be repeatable during the operation phase – should be a trigger for this.

(6) Small and Medium Sized Enterprises

236. The cost of procurement, the size of contracts and the necessary contractual obligations are cited by SMEs as reasons they find it hard to compete in the central government IT marketplace. As a result there is a loss of competitiveness and innovation. Some Departments are already considering structuring their contracts and service management models to allow third party suppliers, including SMEs, to provide specific products and services while retaining overall single-point accountability for integration. The CIO Council should adopt and develop these models, and the OGC should promulgate advice and support to purchasers in this area as part of their existing programme to improve competition in the government marketplace and the engagement with SMEs.

(7) Overall structure of engagement with the IT industry

237. The CIO Council have already asked for a sub-group to focus on supplier management and the OGC are supporting their work. This subgroup should consult Intellect on revisions to the structure of government's overall engagement with the industry, building on the experience and successes of the Senior IT Forum.

4.6 Innovation

238. To support the strategy there must be effective processes to ensure continuing innovation. Technology and methods of employing it change and develop all the time. Government needs therefore to embed processes of innovation so that can capitalise fully and promptly on new technological change and development in the future.

239. Successful innovation involves the creation and implementation of new processes, products, services and methods of delivery which result in significant improvements in efficiency, effectiveness or quality of outcome, perhaps all three. Innovation should not be seen as an optional luxury or an added burden. It should be seen as a core activity to increase the responsiveness of services to local and individual needs; and to keep up with public needs and expectations. It supports the

containment of cost pressures, and can enable both an increase in the efficiency and outcomes of public services.

240. A number of difficulties are raised regarding public sector innovation. Innovation is widely thought to be less effective in the public sector than the private sector. Experience suggests that home-grown innovation in the public sector succeeds as much as elsewhere (the Open University, NHS Direct and Learn Direct). But the mechanisms for identification and nurturing of good ideas and their translation into action are weaker. Innovation is predominantly top-down; take up of technological means of delivery is patchy; and potential innovators feel constrained by perceived rules or existing business models.

241. Some of the most consistently innovative organisations (e.g. Unilever, Shell) do not focus on innovation as such. Instead, they focus on clear outcomes, supported by the right organisational cultures, rewards and methods that ensure innovation is pervasive. Intervention should provide mechanisms for identifying good ideas from all parts of the public sector and 'safe spaces' for ideas to develop. It is important that sufficient knowledge of the technological possibilities is available to support policy development and delivery. More fundamentally, a culture of encouraging innovative thinking – even where this leads to ideas that need to be discarded at a later stage – needs to be developed. This is possible, but it will be difficult, because the public sector is not currently encouraged to take risks, is hierarchical, and relies on people following rules. Making changes to working methods needs of course to protect the 'good' aspects of public sector culture.

242. Many of these changes are already being made. Risk aversion in the Civil Service is being addressed through guidance issued by the National Audit Office, and the Treasury's Orange Book. The Professional Skills for Government project is also addressing the culture of the Civil Service, offering incentives to individuals to behave in different ways by making behaviours part of the process by which people progress through the service.

243. Additionally, much work has taken place on innovation in the public sector in recent years. Some of this has been with regard to R&D for UK PLC; some has focussed on the public sector response to innovation. The DTI Innovation Report "Competing in a Global Economy: The Innovation Challenge" identified seven factors for UK Innovation performance as discussed earlier. The same report recommended the establishment of a DTI Innovation Stakeholder Group and a ministerial group, and the publication of a 'Think Innovation' guide for policy makers. This report fed into the DTI Five Year Programme "Creating Wealth through Knowledge". Other reports include the Strategy Unit paper already referred to; the HMT Science and Innovation Framework, 2004-2014; and OGC guidance on best practise on encouraging innovation in procurement, issued in March 2004.

244. Work in OGC to communicate and embed this guidance is continuing. The guidance is showcased at conferences and working groups, through consultancy and the Embedding Centres of Excellence team. As OGC's remit has recently been extended to the wider public sector these activities are now focussing beyond central government. Through the Better Regulation Taskforce Programme, which is working to reduce barriers to entry for Small and Medium Enterprises (SMEs) and open up

the Government Marketplace, the guidance is now being communicated through a procurer and SME training programme which is running events across the 9 English Government regions throughout 2005-6. The message that SMEs can provide innovative solutions to public sector need is a key message at the procurer training events and the Capturing Innovation pamphlet is also publicised and made available.

245. The DTI's Innovation Report committed DTI and OGC to working together to encourage innovation in public procurement markets to help deliver better value and better quality public services, including working together on a joint project to establish an ideas portal, "a mechanism for firms, inventors and researchers to submit unsolicited, innovative proposals to the public sector." This would enable the public sector to capture innovative ideas with the potential to deliver better public services, improved value for money and contribute to departmental public policy objectives. In turn, greater openness in public procurement could stimulate further innovation.

246. From April 2005 OGC and DTI have jointly taken forward the ideas portal project. They have decided to run a pilot portal in the IT sector and are examining possible models of delivery. OGC and DTI aim to have the pilot operational by March 2006.

352. More generally, DTI works with stakeholders across business, all branches of government, employee representatives and the wider civil society to promote greater competitiveness and innovation. It is striving to provide the tools to accelerate transformation of public service delivery through:

- (1) Supporting technology and content development, sharing the knowledge that builds UK capabilities to support public service delivery, such as tackling crime and enabling safe and secure access to relevant services;
- (2) Promoting international trade and investment in areas serving the public service – leading to shared approaches internationally and hence lower whole-life system costs as well as UK economic benefit;
- (3) Championing innovation in procurement to achieve better solutions and greater value for money, including encouraging new design and technology, commercial structures, types of consortia, and sharing of risks and returns, in order to deliver the quality services that citizens demand;
- (4) Working with the Regional Development Agencies to develop business networks and supply chains that will increase the ability of UK firms including SMEs to contribute to public service delivery, for example in enabling more people to receive care services in their own homes.

247. In addition the Office of Science & Technology's Horizon Scanning Centre, established in November 2004, has the role of 'horizon scanning' to challenge and inform prioritisation, strategy-building and decision-making through out the public sector. The Centre's aims are to feed directly into cross-government priority setting and strategy formation, prioritisation, and central oversight of cross-cutting issues (including informing the science and technology public engagement agenda); and to help departments raise their strategic capability.

248. The Horizon Scanning Centre has links with the smaller horizon scanning teams within all departments with a need for innovation in technology. The Centre will facilitate workshops to support departments and cross-departmental units in their strategy processes. Input to these workshops will be provided in part by the Centre and in part by the organisation concerned. Members of the Centre's private sector and non-governmental organisation network may be invited to participate in the workshops and its database of future issues and trends may also be used to test and challenge policies prior to implementation.

249. At departmental level there are instances of innovation or solution centres. For example the Pension Service Solution Centre has been developed by the Department for Work and Pensions to enable the rapid delivery of business change and the solution of business problems using the latest technology. It offers a modern purpose-built facility where Pension Service staff and their business partners can not only create and develop ideas and concepts at low risk, but also test and demonstrate that those ideas work using leading edge technology and links to the 'live' environment. Similar environments exist in other departments, including HM Revenue and Customs and the Driving and Vehicle Licensing Agency.

250. So to encourage the development and design of better, more joined-up services as technology itself develops, an overall programme is needed to ensure continuing innovation and its feed through into departmental business and technology delivery strategy. It should include the following actions:

- (1) The CIO Council should work strategically with the Department of Trade and Industry in their support of research, knowledge transfer and international partnering in relevant business and technology areas.
- (2) The Service Design Authority, in support of the CIO Council, should coordinate activities to gather up to date information on technology developments and further develop mechanisms to share this knowledge.
- (3) The CIO Council should support a public sector unit that would have the funding and mandate to bring ideas, channels, technology and funding together and to experiment in building different, useful services. This would be owned and funded by departments, and the funding and work programme would be managed by the CIO Council. The Government CIO should run an early pilot, including more detail on how the unit will work, and how promising ideas will be selected, using the Pension Service Solution Centre in Glasgow. This should also take account of opportunities for collaborative international approaches and partnering to reduce whole-life system costs.
- (4) The Cabinet Office should build innovation and technology awareness clearly into professional expertise frameworks for staff, particularly those in policy and operational delivery.
- (5) Public service delivery organisations should ensure all areas of frontline delivery to have feedback mechanisms in place to take advantage of ideas coming from the frontline.

- (6) The Service Design Authority should, on behalf of the CIO Council and the Service Transformation Board, implement a knowledge sharing working group to develop and agree approaches, standards and tools and to encourage the better sharing of knowledge across government.
- (7) The CIO Council, supported by the OGC and the DTI, should work with the private sector to ensure that procurement processes encourage and capture innovation.
- (8) Each year a member of the CIO Council should host a half day seminar of government experts, academics and the technology community to take a forward look at emerging technologies.
- (9) The CIO Council should engage with the Office of Science and Technology's Horizon Scanning Centre to explore the impact of possible future scenarios on IT strategies.
- (10) The CIO Council should, working with Intellect and the OGC, invite suppliers to update the Council as a whole on significant emerging technologies.
- (11) The Service Design Authority, working with OGC, should rationalise and systematise the input to CIOs from industry- and technology-watching consultancies.
- (12) It should be a responsibility of individual CIOs to report to their Boards periodically on opportunities from emerging technology and share their presentations with the CIO Council network.

5. TIMETABLE FOR CHANGE

251. A detailed action plan to implement the strategy should be approved by the CIO Council and the Service Transformation Board, and then published before the end of the current financial year. However the broad timing should be as follows.

252. 2005 & 2006 The current volume of change is stretching the capacity and capability of the government teams and their suppliers to deliver. Major new programmes are already in the pipeline, such as the Olympics, the Census and identity cards. So the next eighteen months should focus on:

- (1) Delivering the massive programmes of change commissioned under the last spending review and already underway, including Connecting for Health, reform of the Criminal Justice System, the Harnessing Technology strategy in education and modernisation of the Defence Information Infrastructure.
- (2) Driving the Connecting Britain - the Digital Strategy programme (of which this strategy is a part) to tackle overall issues of digital inclusion and service provision.
- (3) Mobilising the professionalism agenda - not least so that early action can help assure delivery of the current programme.
- (4) Putting in place the key roles and structures to lead the transformations needed beyond 2006.
- (5) Using the Comprehensive Spending Review to challenge existing delivery models and set clear plans and targets for improving services and realising efficiency benefits through a citizen-centric, shared services approach.
- (6) Working with government and public services at all levels - central government, devolved administrations, local government and other public services - to identify areas of common purpose and opportunities for specific shared actions.

253. Between 2007 and 2011 the priority for technology investment and business change should be transforming delivery into public services centred round citizens and businesses; and transforming support services into shared services frameworks in the front-office, in the back-office, in information and in infrastructure. During this period it will also be important to realise the financial and service benefits of current and planned investments. The goal should be to have made the key changes, to have embedded the new cultures, and to have made the process irreversible, by 2011.

254. The Comprehensive Spending Review recently announced will be fundamental and will be the key opportunity to consider how to get better value for money through collective action. In announcing the review on 19 July 2005 the Chief Secretary stressed that it would 're-examine...public spending allocations in fundamental ways'. In the Review HM Treasury will expect to see '...innovative policy responses,

co-ordination of activity across Departmental boundaries and sustained investment in key areas.' In summary the Comprehensive Spending Review will:

- Take a zero based approach to assessing the effectiveness of Departments' existing spending in delivering the outputs to which they are committed
- Examine the key long-term trends and challenges that will shape the next decade and assess how public services will need to respond
- Look at how the public expenditure framework can best embed and extend efficiency improvements and support the long-term investments needed to meet these challenges.'

255. So the Comprehensive Spending Review in 2007 provides a timely opportunity for a radical look at the way public services are managed and delivered internally and to citizens and businesses. Over a century of silo-based delivery substantial duplication and waste has built up in the system. This money can be unlocked to spend on the Government's delivery priorities if the public sector is given the tools and direction to move to greater sharing of service provision. It is therefore essential that departmental plans fully embrace the principles in this strategy and that opportunities for IT enabled business change are clearly embedded in overall business plans. In particular:

- (1) In line with a fundamental re-examination of public expenditure, the assumption should be that generic service types should be delivered on the basis of simplification, standardisation and sharing at the lowest cost.
- (2) Businesses that do not share must themselves prove that their needs require specialised services or that there are no suitable opportunities for sharing. They must prove also that these specialised services represent value for money, taking account of the additional risk, lead times and management overheads and distraction, as well as costs, of developing or maintaining non-shared provision in supporting areas.
- (3) The process should also take account of likely trajectories of efficiencies through sharing as its occurrence increases over the long term. (cf the work already done within the Corporate Services work stream of the Efficiency Review). This locks in compound efficiencies over time.

256. Beyond 2011 should be a period of further radical change in the delivery of public services, enabled by technology. The cycle of technological advancement is rapid and hard to predict. But if the broad themes of this strategy over the next five years are achieved in practice, strong foundations will be in place. In particular:

- (1) The focus on delivery and professionalism will have generated confidence in government's ability to transform itself in radical ways.
- (2) The switchover to new channels, supported by common infrastructure and the digital home will enable radical new service delivery options to be implemented.

- (3) Some of the newer technologies today will be in the mainstream by 2011 and the time will be right to roll out their widespread exploitation.
- (4) The culture of government will have changed to one which embraces – rather than shuns – sharing, which will continue to breakdown the silos perceived today.
- (5) The market and other governments will have set new citizen expectations and created new opportunities for government in the UK to exploit.

257. It is likely therefore that the planning for this era will be based upon a vision that sees citizens and businesses increasingly serving themselves – at home, in work and public places and on the move; public servants truly dependent on technology to discharge their professional roles; policy makers regarding technology as crucial to designing policy and achieving policy outcomes; and backed by a government delivery network in which the boundaries between departments, between central and local, and between public, private and voluntary continue to be less important and less visible to the citizens and businesses. This may seem very radical by today's standards. But with strong foundations laid in the next few years it should be entirely achievable.

A. TECHNOLOGY FUTURES

A1. The cycle of technological change and adoption is rapid and hard to predict: for example the vision from the 1950s of personal helicopters for all.³² Nonetheless it might be possible to see what generic, largely un-contentious technology development themes will be important for the next five to ten years. For instance:

- Massively increasing bandwidth in the home and, to a lesser extent on the move.³³
- Memory capacity/density continuing to increase and price per byte falling.³⁴
- Display technology becoming more rugged and powerful – more colours, bigger more flexible screens on more and more devices with lower power consumption
- Battery or portable energy storage increasing in density and price – smaller cheaper yet more powerful batteries at lower prices.³⁵
- Processor speeds rising and power consumption falling.
- Image capture technology becoming smaller still and higher quality – cameras on pretty well everything.³⁶
- Proliferation of easy to use biometrics in consumer devices – such as mobile phones to reduce theft value³⁷ and national rollout of identity cards.
- Knowledge searching, finding and linking technologies improving radically – more relevant knowledge and information more quickly on all connected devices.³⁸
- Video broadcasting converging with mobile devices/phones.³⁹

³² Lord Cherwell, the government adviser in the 1950s argued that the railways could be replaced by “personal helicopters.”

³³ For example, in July 2005, BT launched BT GigaStream, a low cost, point to point Ethernet private circuit service available nationally at speeds of between 250Mbit/s and 1Gbit/s.

³⁴ In 1985 the average price per megabyte was \$550; in 1995 it was \$32 by 2005 it had reached \$0.10 source: <http://jcmit.com/memoryprice.htm>

³⁵ Research indicates that nanotechnology batteries employing carbon nanotubes will have twice the life of traditional modern batteries. A new form of battery is in development called Power Paper. This thin, flexible battery comes in the form of ink cells which can be printed on to virtually any surface and produce power. Source: <http://www.computerweekly.com>

³⁶ Hiroshi Nakaizumi, the head of design at Sony Ericsson, declared in May 2005 that 2 megapixel camera phones would be standard by 2006 and 5megapixel by 2008. <http://www.sonyericsson.com/>

³⁷ In 2004, LG Telecom, one of the largest wireless network operators in Korea, launched its first biometric cell phone – the LP3800 – which features the newest fingerprint sensor from AuthenTec. <http://www.3g.co.uk/PR/Sept2004/8318.htm>

³⁸ At a PC Forum conference in 2004, Google CEO Eric Schmidt predicted that a search engine of 2010 will know who you are, where you are and what you're doing, and look across every form of information to automatically find what will help you. http://www.usatoday.com/tech/columnist/kevinmaney/2004-03-30-search_x.htm

³⁹ Dr. Kang Tea Ik, chief Research Engineer for LG Mobile phone, announced in July 2005: 'The next generation 3.5G LG mobile phones will have data transfer speed will soon reach 10 Mbps and new handsets will provide converged technologies capable of broadcast functions (DMB), video-on-demand, video conferencing, and interactive broadcasting. <http://www.ameinfo.com/64792.html>

- Voice recognition and possibly translation continuing to improve.⁴⁰
- Location based services can be offered to the entire population as 3G phones predominate – companies will roll over new customers to the cheaper to run 3G phones.⁴¹
- A step change in the IT built into vehicles and machinery as IT becomes more rugged and reliable.

A2. This list is by no means exclusive. It is easy to miss early developing trends; and there can be powerful effects from combinations of developments, such as digital convergence (“the successful application of rich multimedia products and integrated services that previously did not exist, or were provided separately, from organisations across the technology, media and telecoms sectors”⁴²).

A3. Taken in the round, what does this mean for the consumer?

- More and more powerful mobile devices like phones with video display and capture with power to access on-line services.
- The general trend for mobile phones to be as powerful as desktop PCs of five years previously will continue.⁴³
- Bandwidth in the home of the type currently used by large companies and TV studios, combined with massive storage – for instance a digital TV set top box with a terabyte internal storage plugged into a 5MB home internet connection and file sharing software is already plausible.
- Instantaneous access to the right knowledge about a particular circumstance.

A4. To the public service provider future technology changes might mean:

- (1) Exploiting the ability to move away from text and keyboard input and output to bridge the digital divide caused by literacy and numeracy issues.
- (2) Using more rich media.
- (3) Running public service advertising slots to mobile phones, with the user able to fulfil securely using a biometric device built into the phone.
- (4) Integrating powerful mobile phone return paths to fulfil digital TV based services across home based platforms.

⁴⁰ Speech recognition is listed as one of the top 10 technologies likely to have the greatest impact on business through to 2007, according to the Gartner Group, a leading provider of research and analysis on the global information technology industry. An Allied Business Intelligence study estimates the speech recognition market could grow to \$53 billion globally by 2008 from its current \$1 billion. An industry analyst, Zelos group, estimates a traditional call centre can reduce the cost per customer call from \$4 to \$10 to between 10 and 40 cents through automation. Customer satisfaction also improves through reduced waiting times.

⁴¹ By 2007, location based services are estimated to account for 10 per cent of mobile value-added services. <http://www.3g.co.uk/PR/July2004/8027.htm>

⁴² See “Capitalising on Convergence”, Intellect, 2005 <http://www.intellectuk.org/convergence>

⁴³ Dr Walter Tuttlebee, Executive Director of Mobile VCE stated in an interview in July 2005 that ‘the processing power of a mobile phone was roughly five years behind that of a PC’

- (5) Greater ability to serve minority language populations.
- (6) Possibly (although this has been predicted many times before in vain) making greater use of two way or one way video – if a caller to NHS Direct has a strange growth or mark why shouldn't they be able to wave it in front of the camera in their phone?
- (7) Greater use of 'self surveillance' in crime fighting – as demonstrated in prototype the recent attacks on London.
- (8) Exploiting and harnessing people's willingness to look after themselves with access to more information – changing the nature of public service information provision to serve complex or exceptional cases.

Informed and empowered customers

A5. People already use the internet to find out information for themselves. It gives them the choice as to whether to believe advice provided by traditional sources, including public service workers. Search engines, other on-line knowledge tools and increasing internet use will increase the access to information about public services and the world in general – both for good and bad.

A6. This presents challenges for the public sector – both in our outward facing services and internal processes. Embracing this change is an opportunity for government not a threat. It does not mean the end of government as a controller of knowledge about itself, but the beginning of a new relationship in new media with modern citizens and enterprises – a relationship that is targeted and individual, personalised by providing information to suit every circumstance.

A7. Children in schools are able to supplement traditional classroom information with on line searches, shifting the role of teachers from the guardian and dispenser of education to a guide and interpreter for what is found. Doctors increasingly encounter 'expert' patients who have used the internet to research their perceived condition. The NHS "expert patient programme" gives patients with serious chronic conditions more information so they can take an active role in their own care. If the principle can be applied to medical care, it could be considered for benefits claims and other areas of government, and empower people to take control of the way in which they use public services.

A8. If detailed, accurate information is available people will often look after themselves rather than initiating expensive contacts with government. The same principle could be applied within government to the way in which public sector workers find and apply knowledge. Communities of public sector workers, from policy to delivery, working together around common knowledge banks, are the step beyond ad-hoc sharing of data and people on joint teams. The power of this model to remove existing barriers to 'joined up' government cannot be underestimated.

B. AGENTS AND INTERMEDIARIES

B1. Adult children should be able to help their elderly parents access on-line services. The principle should be extended to other appropriate third parties. To facilitate this, standard voluntary sector protocols for third party access to systems should be established reducing the need to negotiate from scratch for each service or organisation. Third parties should include social workers, local authorities, Citizens' Advice Bureau, charities, and so on.

B2. The transformation of public service delivery requires more than cross-government working if true customer-centricity, and its attendant benefit of efficiency, is to be fully realised. This transformation requires the crossing of boundaries with the private and voluntary sectors in innovative ways

B3. While government will work with agents it commissions to deliver its services, through outsourcing, partnership and other mechanisms, it must also allow citizens and businesses to appoint their own intermediaries who represent them to government. Government must therefore recognise the intermediary too.

B4. Owners of public services should use customer insight, segmentation and channel management techniques to identify opportunities for intermediation.

B5. Successful intermediation will only subsequently occur if delivery operations are then adapted to permit interfaces that allow intermediaries to exchange relevant data with them. Such interfaces should be standardised and subject to service level agreements to ensure quality.

B6. In practice such steps could lead to public service bodies delivering elements of their service to organisations that already serve a target customer group. This would allow these organisations to bundle them into more attractive service propositions that achieve higher take-up than a direct-from-government one – in effect, wholesaling to retailers.

B7. Working in this way with the private sector would enable car insurers to bundle car tax with breakdown service and repair contracts into a single car care package, spreading customer payments over a year. This would encourage the on-line take-up of the car tax service.

B8. Working this way with the voluntary and community sector could allow help sites, such as 'Entitled-To, not just advise clients but complete transactions for them. After assisting a client to complete a form, using its own guidance it could then submit on-line direct.

B9. By enabling citizens to access such assisted self service, government will be able to harness the strength of intermediaries' existing customer focus and innovations. It also creates precedent for further horizontal management of end-to-end processes thus aiding more rapid transformation.

C. CHANNEL SHIFT

C1. Government has a series of universal service obligations, but must deliver these in a context restricted by legislation, public opinion and political pressures, and often in areas where it has limited control over all the elements it needs to deliver a compelling service. It also has an obligation to minimise the costs of its services, for the benefit of its customers. The new opportunities for service design and access have created alternate channels for customers to access services. Government has an obligation to drive traffic towards the more efficient and effective channels.

C2. Private sector experience has led many customers to expect incentives to use electronic channels. These range from tangible financial benefits – perhaps a discount on services purchased, or access to a higher interest rate – to convenience and better service.

C3. While, in many areas, the benefits to government of promoting channel shift are clear – particularly in the transactions area – the suitability of the optimum mix of levers has yet to be fully explored.

C4. The benefits are clear. For example, as long ago as 1988, the US Internal Revenue Service estimated that the cost of processing an electronic return was only some 3 cents, while to process a paper return cost some 72.5 cents (CCH Tax Focus 1998).

C5. In the UK too there are some striking examples. The Pensions Payment Modernisation Programme means that 96% of customers now receive some or all of their benefits paid directly into their bank account. And the Jobsearch facility available on the Jobcentre Plus website, in office kiosks and used by Jobcentre Plus staff, has entirely replaced card based job searches.

C6. Yet driving traffic to this route is not straightforward. This is clearly a complex area for government and deserves further investigation. The public and private sectors differ in the tools they have available. While a company can launch a service aimed at a specific segment of the market and not worry about those whose needs are not met, government cannot.

C7. So the real challenge is how government can migrate users to the lowest cost channel consistent with meeting its policy objectives and with minimal financial and political cost. For example, at what point is it acceptable to mandate channel shift to more cost effective channels for the good of the country, even if it might cause some discomfort to some customers in the short term?

C8. A review of channel shift strategies across the private and public sectors reveals that incentives appear to fall into five broad categories:

- Financial.
- Time based.
- Value added services.
- Possible compulsion for channel shift.
- Promoting 'responsible' channel usage.

Financial incentives

C9. These may include direct financial incentives, or payment flexibility. Governments around the world have been experimenting in this area. While some do give direct financial incentives, incentives that centre on payment flexibility are more common.

C10. Denmark does offer rewards for e-filing for SMEs: although small – some £2-5 – they do appear to act as incentives. In the US, tax refunds are given in 2 weeks if the return is filed electronically, versus 4-6 weeks for paper returns. In Australia, processing of an electronic return takes some 2 weeks, and tax practitioners are given an extra month as incentive to adopt e-filing. In the UK since February 2005 over 190,000 companies have taken advantage of a £15 saving in the cost to submit an Annual Return to Companies House through choosing to file electronically, saving UK business £2.9m

C11. Areas for further consideration might include cash incentives for on-line transactions, later/flexible payment terms for electronic transactions, earlier refunds, or surcharges for use of more 'expensive' channels.

C12. However financial incentives are unlikely to be a strong takeup driver for services which are difficult to find or use. Conversely services that are accessible and easy to use can achieve good take-up without financial incentives (such as 50% on-line booking of driving theory tests with the Driving Standards Agency) and financial incentives could therefore lead to considerable deadweight costs.

Time Savings

C13. A key area of benefit, both to government and its customers, is packaging up services to save time. Research indicates that customers would be inclined to use on-line government services more, if they were to save time⁴⁴. For businesses in particular, freeing up organisational capacity is a major potential benefit, creating space for improved productivity. In the private sector, a recent Barclays campaign offering on-line services to SMEs ran under the strapline 'Giving small business customers back their weekends'.

C14. A The VAT decision tree in businesslink.gov.uk shows what can be done. Instead of having to navigate large and complex guidance documents, users of the decision tree answer a few simple questions; the tool then produces a clear statement of whether the business needs to register for VAT or not.

Adding value through information and expertise

C15. Another area of leverage is in making customer services add value to the consumer. Consumers are accustomed to using private sector sites for the rich information they can mine, finding and building lists of favourite sites to add value to their lifestyle needs.

⁴⁴ McCallum Layton 2002 and Conjoint 2003

C16. Governments too are focusing on 'pulling' customers to more efficient channels by making their information more useful and attractive. They are building sites with enhanced information and expert advice through web site content and intelligent applications. In Denmark, the tax agency ToldSkat enables business users to see their 'eVAT' history as it builds up. In Ireland, the system for returning vehicle tax allows tax users to see their revenue accounts as a means of managing cash flow to cover their latest registration bill. In the US, Access America for Students collaborates with the Internal Revenue Service to make electronic filing available to all students, as well as supplying information on the tax rules associated with loans, scholarships and fellowships. In Australia in 1997, the e-tax programme included software that enabled customers to prepare and lodge their tax return on-line, with all the calculations done for them.

Considering the case for compulsion

C17. On-line applications for banking are often described as 'weightless' – cheaper and easier to deliver on-line and offering providers enormous scope for cost cutting and efficiency gains. The major banks are therefore targeting near universal penetration of their customer base with on-line banking, and view the move from cheques to on-line payment as analogous with the move to switch and debit cards in the mid 1990s. Some banks are making certain functions compulsory to be handled on-line. For example, Barclays made 40,000 customers move their PAYE system on line and phased out the paper version. But this was carefully handled over a two year transition period with a major communications campaign.

C18. Other companies also mandate the use of particular channels for their customers or suppliers. For example, Egg operates only on-line and General Motors will only use suppliers who use their e-procurement system. However the customers of all of these companies have an exit option which the customers of most government services – particularly revenue agencies – do not have, so these examples must be viewed with caution.

C19. But there are signs that governments are moving to carefully selected compulsory channel shift, focusing initially on the more sophisticated audiences of business and intermediaries. These mandates also appear to be initiated after the first wave of early adopters have passed and takeup has plateaued, and often after other incentives have been tried. The Inland Revenue is phasing in compulsory electronic filing of employers end of year return from 2004/5. The Australian Tax Office has introduced the Australian Business register compelling businesses to acquire a unique identifier, without which they cannot reclaim GST (VAT equivalent). In Italy, all 13,000 authorised tax intermediaries must file electronically.

C20. Government believes there is a case to further investigate this area, with particular consideration given to the more sophisticated groups of customers, such as business, rather the more 'digitally challenged' groups such as pensioners.

C21. Ministers have decided to carry out a review about how best to increase the use – primarily by businesses – of HM Revenue and Customs on-line services. Lord Carter will lead the review and report with recommendations later this year.

Promoting 'responsible' channel use

C22. There are also possibilities to be explored to develop incentives that appeal to customers' more altruistic motives. The implication would be that the use of cheaper channels would benefit the country as a whole by driving down costs, and improving customer service and productivity. There is some evidence of effective government campaigns that seek to drive different and more responsible behaviours.

Conclusion

C23. Customers should normally have some channel choice, but government has a responsibility to guide them towards cheaper channels. So:

- (1) The Service Design Authority should co-ordinate investigation of how to incentivise take-up of new channels. Over time service providers can migrate all their customers to new channels, but the transition period can be lengthy. The benefits of faster changeover can be very significant. Government should therefore use its new channels of engagement to explore with citizens and businesses how best to incentivise take-up of new channels, especially when the benefit is more keenly felt by the government organisation rather than the citizen or business. Fundamental to this will be the work done to understand customer groups. Different segments of the market are likely to respond in different ways to a different mix, and timing, of incentives. And each "incentive" has a different type and level of cost. Incentive strategies will need to create a framework to deploy each "incentive" at the right time and aimed at the right segment, to create a proportionate response.
- (2) Each Customer Group Director should determine a trajectory for transition for the services used by their customer group. From this point the services will be presumed to be digitally based (even when accessed via the telephone or text message). For example, it is already possible to deliver all services to students over the internet – they are fully familiar with the medium and can access it readily. Maintaining paper or even phone paper based systems is expensive and duplicative. The Department for Education and Skills has set up a review in part to examine this issue. Large and medium sized businesses already administer their businesses electronically. Over the next five years access to the internet can only increase: this enables the public sector to question its existing methods of service delivery.
- (3) The Service Design Authority should study the possibility of promoting 'responsible' channel usage, perhaps analogous to the Fairtrade scheme in retailing. In such a scheme citizens' use of the new, more efficient channels leads not to immediate benefits to themselves as service consumers, but to benefits for themselves as taxpayers and for the wider community of citizens. Government could for instance communicate how much is saved by using a cheaper channel and illustrative what savings that might bring to the service being consumed or what this means for investments in, say, health, education or local community facilities and

services. The intent here is to encourage citizens to use the cheaper channels for the common good – in the same way they choose Fairtrade goods to help otherwise exploited farmers and producers.

D. EXAMPLE CIO SCORECARD

Key Challenges	Obj No	Objectives	KPI No	FREQ	KPIs
Business Value Creation	1	Enable the Department's business to deliver its services at maximum efficiency	29	M	Percentage of employee days lost as a result of system outages or unusually slow service
	2	Enable the Department's business to transform its services and products for its customers	3	M	Forecast and actual benefits realised by projects within timeframe
	3	Ensure the integrated delivery of projects to the agreed time, scope, cost and quality	17	M	Percentage of major projects on track to deliver promised benefits
			19	M	Percentage of major projects on track to complete successfully
			18	Q	Average time to market for new products
			20	Q	Percentage of development activity which supports the business requirements of more than one business area
	4	Enable the reputation of the Department and its IT to be strong and positive	4	Q	Analysis of media coverage
			5	A	Percentage of staff who believe that the technology they have helps them to do their job more effectively
	5	Define the Department's IS/IT strategy and ensure it is achievable	6	M	Percentage of strategic targets and milestones that are delivered as specified
Cost Management	6	Deliver CIO's SR04 Plan	10	M	Savings delivered to the Department
			9	M	CIO headcount
			11	Q	Total IS/IT costs
	7	Reduce the cost of delivering Departmental projects whilst meeting the agreed time, scope and quality	13	M	Total project spend
			12	Q	Total lifetime cost
	8	Reduce live operations and service costs whilst improving service levels	15	TBD	Average cost of key IT services

Key Challenges	Obj No	Objectives	KPI No	FREQ	KPIs
			14	Q	Spend on IT projects versus spend on live services
World-Class Services	9	Optimise supplier spend and performance	22	Q	Supplier savings realised for Department
			23	Q	Supplier performance management
			21	Q	Optimise the number of live contracts
	10	Seek out and implement world-class processes	25	Q	Number of processes meeting desired levels
			24	Q	Average customer satisfaction score for the businesses
	11	Reduce risk exposures for live systems, project delivery, and delivery of CIO business plans	26a	M	Value of risk exposure on IS/IT portion of spend on projects
			26b	TBD	Value of risk exposure on IS/IT portion of operational spend
Technology	12	Reduce architectural complexity and enable standardisation of business services delivered	27	M	Percentage of projects that comply with the Department's Enterprise IT Architecture
	13	Increase availability and resilience of live systems to agreed levels	28	M	Percentage of time the systems meet or exceed the required SLA service levels
			30	TBD	Volume of transactions affected by system outages or unusually slow service
	14	Use technology innovation to improve Department's performance	31	Q	Percentage of innovation projects that are value adding
People and Organisation	15	Deliver Department's IT Transformation Programme	7	M	Cost vs budget

Key Challenges	Obj No	Objectives	KPI No	FREQ	KPIs
			8	M	Progress vs Level 1 milestones
	16	Establish world-class performance of teams and individuals	33	M/Q	Percentage of staff with a Personal Development Plan
			32	M	Average number of working days lost in CIO function
	17	Increase capability and sustain specialist resources	35	TBD	Average number of training days per employee
			34	TBD	Average CMM level across CIO function
	18	Provide exemplary leadership to achieve world-class performance	36	Q	Percentage of staff who feel engaged with CIO's strategy

E. SERVICE TRANSFORMATION BOARD

E1. A Service Transformation Board should provide collective leadership in the government business community

E2. The Government CIO and a number of business leaders at Director General/Chief Executive level have already established an informal "Service Transformation Board" to provide oversight of the development of the Transformational Government strategy, to address issues of common concern to business delivery leaders and to guide the work of the E-Government Unit.

E3. This Board should be formalised to champion the transformation of public service delivery across government and to sponsor and promote a business driven, end-to-end service design and delivery vision across public services. Membership should be drawn from senior officials (normally at Director General/Chief Executive level) from the main Departments who are personally responsible for large scale public sector business, together with equivalent figures from local authorities and the wider public sector who are contributing to the radical redesign and transformation of public services.

E4. It should focus on five key areas:

- Prioritise the strategic opportunities technology offers for government.
- Lead cross government thinking on business delivery models: for example customer service design, channel strategies, take-up strategies, identity, and mandation of electronic channels.
- Assess progress of IT Transformation in delivering key policy objectives.
- Sponsor the development and roll out of business driven best practice for managing the re-design and transformation of public services.
- Commission cross cutting actions and initiatives, as required, to exploit common enablers or address common issues/barriers to progress.

E5. To help it do so, it should provide clear and effective sponsorship and governance for the work of the Service Design Authority (see below): a key role of the Service Design Authority will be to ensure that policies agreed by the Service Transformation Board are communicated and carried into operational practice.

E6. The terms of reference for the Service Transformation Board should include:

- (1) The Service Transformation Board should own and champion the cross-government, customer-focused, end-to-end service design and delivery vision as articulated in the "Transformational Government" Strategy.
- (2) The Board will bring together senior representatives from the main government organisations which are contributing to the radical re-design and transformation of public services. Members will share experience and issues, and commission cross-cutting actions where necessary and appropriate to address common themes. It will operate alongside the CIO Council (which will take the lead in the development of IT capability, professionalism and related IT issues).

- (3) The Board will be supported by an executive arm, the Service Design Authority. Its role is to service the decision-making of the Board (for example, by researching and scoping possible areas of activity; ensuring that decisions are executed; and acting with the authority of the Board as its standing representative with government organisations).
- (4) The authority of the Board rests in part on the ability of its members to take decisions on behalf of their organisations, and in part on its ability to present well-researched and well-articulated arguments. As such, the Service Design Authority has a responsibility to present the Board with materials of the highest quality, based on sound evidence and (where possible) supported by relevant partners.
- (5) The Service Design Authority will retain a small, full-time, core staff (hosted and funded by the Cabinet Office) but will operate in a highly facilitative manner, maintaining and working through networks. It will not duplicate or cut across activities which are already being carried out by government or which are properly the responsibility of a particular public sector body. Indeed, it is expected that much of its work will be concerned with identifying and extracting maximum value from existing activities.
- (6) While the work of the Board is guided by the "Transformational Government" Strategy in the early stages it may work more pragmatically, building credibility and gaining experience in parallel with defining the longer term. While operating in this pragmatic way the Service Design Authority will rely on the judgement of Board members in selecting suitable work areas. Over time it may be that a more systematic approach can be agreed.
- (7) It is not the function of the Board or the Service Design Authority to hold and deploy a budget. The Service Design Authority may have a small budget of its own to support its work and interventions, but any funding requirement beyond the incidental would have to be found from within existing resources. The Service Design Authority (in partnership with relevant departments) has a role to play in shaping proposals and brokering possible finance packages, but should not act as a funder itself.
- (8) While the Service Design Authority should seek consensus in its work, this does not mean that it should avoid robust challenge of departmental activities where this is justified and supported by evidence. Indeed, much of its value lies in its ability to take an objective, customer view of service quality.
- (9) Its work should be as much about creating the capacity and appetite for transformational change in the public sector as about delivering that change. A critical indication of success would be when the Service Design Authority ceases to push change, and departments start to pull it.

F. CIO COUNCIL

F1. A CIO Council of Departmental and wider public sector CIOs chaired by the Government CIO has already been established. This should have a formal status in creating and delivering a government-wide agenda to support the transformation of government and to build capacity and capability in IT-enabled business change.

F2. The operating model for the CIO Council should be as follows:

- The Council should be chaired by the Government CIO. His team will also provide secretariat and other full time support to the Council.
- Council Membership changes should be exclusively the province of the full Council.
- Members should attend the major meetings in person, deputies only acceptable in extremis.
- There should normally be three to four full day Council meetings per year.
- Council Members should be expected to operate on a “collegiate responsibility” basis in steering, owning and delivering the agreed strategic actions.
- In general, subsets of the Council should complete pieces of work between meetings for the adoption at the next Council meeting.

F3. The Council should function as a collegiate management team in which individual members:

- Develop a common agenda in which they personally believe, and which they take back to their own organisations and to their own supplier relationships to execute.
- Take a government wide view whilst maintaining accountability for specific operations and programmes in their area.
- Break down barriers across government.
- Facilitate and encourage learning from each other, and from each other’s own agencies.
- Develop their staff as professional assets for the public sector as a whole, and devote a significant part of their personal time to developing the next generation.

F4. The CIO Council should form a number of sub-groups to provide leadership to specific cross cutting activities including:

- Governance of common infrastructure services.
- Supplier management.
- IT professionalism.

F5. The CIO Council should be supported both by a secretariat in the Office of the Government CIO and by a Technical Design Authority provided as part of the Service Design Authority.

G. ROLE OF CUSTOMER GROUP DIRECTOR

G1. The initial appointees as Customer Group Director should have an early objective of develop this role, including its own accountability and any necessary adjustments to the accountabilities of others, its relationship with local government, and the resources and governance necessary. However this Annex sets out a basis for further discussion and development.

G2. The Customer Group Directors should design and own the overall service offering to customers in each of the high level customer groups (citizen and business). They should be the prime internal customers for all service delivery to their customer groups across public services, and be responsible for what the customer sees and experiences. These are business and strategic roles which involve much working with and through others. Each Customer Group Director should, for their customer group:

- (1) Define and communicate the government's customer-centric vision and strategic service delivery model.
- (2) Develop a strong, analytically based understanding of customer behaviour and customer volumes/metrics; define customer sub-segments, adjusting these from time to time to improve efficiency and customer service in the light of operational experience and customer research, feedback and behaviour; and sponsor customer research and testing, supported by the Government Communications Group.
- (3) Define the integration and presentation of services to their customers across all departments and delivery agencies and across all channels, including agents and intermediaries.
- (4) Define an overall integrated channel strategy for these customers. This should include customer/channel migration and service take-up; branding and communications; and service improvements.
- (5) Specify operational service requirements, largely in output terms and the customer experience.
- (6) Specify and sponsor projects needed to deliver these offerings or strategies, including their costs and benefits cases, and confirm that these projects are appropriately included in the plans from the relevant departments and delivery agencies.
- (7) Ensure co-ordinated management of stakeholders relevant to these customer segments and the strategic issues associated with them and work with other government interests in these customer groups.
- (8) Advise the Treasury on the allocation and prioritisation of plans submitted that affect the customer group.

G3. The Customer Group Directors should work together, and with the Service Transformation Board and the Service Design Authority, to ensure consistency of business processes and a common 'look and feel' to their customer group from across the public sector. They should ensure a consistent, smooth experience for customers who fall into multiple customer groups.

G4. Once specified, individual customer service-related projects and operational services should, in most instances, be for delivery organisations to implement to agreed scope, timescales and budget.

G5. Each Customer Group Director should be supported by a small team, partly virtual and drawn from those in delivery bodies with knowledge of services to those customers, and the Service Design Authority. Members of these teams should be clearly understood to be acting in a corporate capacity and not as delegates from their home body.

G6. In order to fulfil their roles, the Customer Group Directors should receive papers from, and be able to attend, the Service Transformation Board. They should also receive papers from the CIO Council. They should decide how to prioritise their involvement in these.

G7. Each Customer Director should regularly update his or her Ministerial Sponsor. The Sponsor should provide guidance and support, including in securing resources from across public services and in resolving escalated issues specific to the customer group or corresponding strategic or mission critical programmes.

G8. The Customer Group Directors and the Service Design Authority should meet regularly to ensure that their responsibilities are meshing together well in practice, to confirm priorities and to agree action to resolve shared issues.

G9. The role of Customer Group Director will not necessarily be a new post but could be an additional role for someone with a complementary role at the moment. The role of Customer Group Director is however substantial in its own right and the role holder would be expected to commit a substantial amount of their time to this role.